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FROM

Ohio State Library

Sixty-Eighth Annual Report

OF THE

Ohio State Board of Agriculture

AND THE

Ohio Agricultural Commission

DIVISION OF AGRICULTURE

**WITH AN ABSTRACT OF
THE PROCEEDINGS OF**

The County Agricultural Societies

For the Year 1913

TO THE

General Assembly of the State of Ohio



**Springfield, Ohio :
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Ohio State Board of Agriculture 1913

Officers

E. L. LYBARGER, President.

P. G. EWART, Vice-President.

L. W. KILGORE, Treasurer.

A. P. SANDLES, Secretary, Columbus.

J. W. FLEMING, Assistant Secretary, Columbus.

Members

	Term Expires.
P. G. EWART, East Akron, Summit County.....	January, 1913
E. L. LYBARGER, Warsaw, Coshocton County.....	January, 1913
JACOB B. PERKINS, Cleveland, Cuyahoga County.....	January, 1914
J. F. CROSS, Washington C. H., Fayette County.....	January, 1914
T. E. CROMLEY, Ashville, Pickaway County.....	January, 1915
L. W. KILGORE, London, Madison County.....	January, 1915
C. W. McFARLAND, Mt. Gilead, Morrow County.....	January, 1916
W. G. FARNSWORTH, Waterville, Lucas County.....	January, 1916
C. H. GANSON, Urbana, Champaign County.....	January, 1917
JACOB DEAN, Chester, Meigs County.....	January, 1917

ANNUAL REPORT
DEPARTMENT OF AGRICULTURE,
COLUMBUS, OHIO.

1913.

To the General Assembly of Ohio.

GENTLEMEN:—Agreeable to law, herewith submitted is annual report of The Ohio Department of Agriculture for the year ending March 1, 1914.

Ohio agricultural activity is at quick-step. Interest in better farming is no longer confined to rural districts. Town and city folks are getting the "Dirt Religion."

The past year has shown many victories for the College of Agriculture, Experiment Station, Farmer Institutes, live stock sanitation, nursery and orchard work, State Fair, junior contests, feed and fertilizer inspection work, and other lines of promotion work.

On August 6, 1913, the law known as "The Agricultural Commission Act" went into effect. This law combined all Ohio agricultural activities under a commission composed of five men, including the governor of the state, ex-officio member. This law discharged the State Board of Agriculture, which had existed since 1846, the Board of Control of the Ohio Agricultural Experiment Station, The Fish and Game Commission, The State Board of Veterinary Examiners, The State Board of Live Stock Commissioners, The Dairy and Food Commissioner, and took over the inspection work of The State Board of Pharmacy.

Governor Cox, pursuant to the requirements of the Agricultural Commission Act appointed the following persons to serve as members of The Agricultural Commission:

Prof. C. G. Williams, Wooster Experiment Station, two-year term.

S. E. Strode, Dairy and Food Commissioner, three-year term.

A. P. Sandles, Secretary State Board of Agriculture, six-year term.

Under this law Prof. H. C. Price, Dean of the College of Agriculture, became member of the Commission.

The Commission elected A. P. Sandles, President, and B. F. Gayman as Secretary.

Respectfully,

THE OHIO STATE BOARD OF AGRICULTURE,
THE OHIO AGRICULTURAL COMMISSION.

AGRICULTURAL COMMISSION OF OHIO

MEMBERS:

A. P. SANDLES, President

S. E. STRODE

C. G. WILLIAMS

H. C. PRICE

GOV. JAS. M. COX, Ex-Officio

BENJ. F. GAYMAN, Secretary

(4)

**LIST OF MEMBERS OF THE OHIO STATE BOARD OF AGRICULTURE
FROM THE ORGANIZATION OF THE BOARD TO DATE.**

(NOTE—The act creating the State Board of Agriculture, passed in 1846, provided for fifty-three members and named them. The act was amended in 1847, reducing the number of members to ten. Five members were elected each year for a term of two years until 1898, when the act was so amended as to provide for the election of two members each year for a term of five years.)

Names.	Years of Service, Inclusive.	Residence.
John B. Bayless.....	1846	Jefferson County.
Henry C. Brish.....	1846	Seneca County.
Frederick Bonner.....	1846	Greene County.
Joseph Burns.....	1846	Coshocton County.
John Chaney.....	1846	Fairfield County.
G. W. Cowden.....	1846	Trumbull County.
Absalom Dun.....	1846	Butler County.
John Eckles.....	1846	Hancock County.
Elias Florence.....	1846	Pickaway County.
John Fuller.....	1846	Erie County.
Geo. W. Gibbons.....	1846	Muskingum County.
William Gill.....	1846	Pickaway County.
H. N. Gillett.....	1846	Lawrence County.
L. C. Goble.....	1846	Putnam County.
David Gregory.....	1846	Delaware County.
Anson Howard.....	1846	Champaign County.
John Johnson.....	1846	Miami County.
Aaron Johnson.....	1846	Perry County.
Greenbury Keen.....	1846	Portage County.
Billius Kirtland.....	1846	Mahoning County.
Newton Larsh.....	1846	Preble County.
Liba Lindley.....	1846	Athens County.
Jas. Loudon.....	1846	Brown County.
John McElderry.....	1846	Tuscarawas County.
Wm. McFadden.....	1846	Harrison County.
Beatty McFarland.....	1846	Jefferson County.
John Martin.....	1846	Columbiana County.
Isaac Moore.....	1846	Lake County.
Gilman C. Mudgett.....	1846	Paulding County.
Samuel Myers.....	1846	Crawford County.
Isaac Neiswanger.....	1846	Belmont County.
Simon Perkins.....	1846	Summit County.
Henry Protzman.....	1846	Montgomery County.
W. R. Putman, Jr.....	1846	Washington County.
Felix Renick.....	1846	Ross County.
Jas. L. Reynolds.....	1846	Stark County.
Benj. Ruggles.....	1846	Belmont County.
Sam'l Spangler.....	1846	Fairfield County.
David Stevens.....	1846	Richland County.
Abraham Studdebaker.....	1846	Darke County.
Dowty Utter.....	1846	Clermont County.
John I. Vanmeter.....	1846	Pike County.
Richard Warner.....	1846	Medina County.
Jesse Wilson.....	1846	Shelby County.
J. M. Millikin.....	1846	Hamilton.
J. T. Pugsley.....	1846	Convenience.
Allen Trimble.....	1846-51	Hillsboro.
M. L. Sullivant.....	1846-53	Columbus.
Sam'l Medary.....	1846-53	Columbus.
Darius Lapham.....	1846-50	Cincinnati.

MEMBERS OF THE STATE BOARD OF AGRICULTURE—Continued.

Names.	Years of Service, Inclusive.	Residence.
Arthur Watts.....	1846-52	Chillicothe.
J. P. Kirtland.....	1846-48	Cleveland.
A. E. Strickle.....	1846-49	Wilmington.
M. B. Bateham.....	1847-51	Columbus.
John Coddington.....	1847-49	Granger.
C. Springer.....	1848-52	Meadow Farm.
J. M. Edwards.....	1848-52	Canfield.
J. G. Gest.....	1848-54	Spring Valley.
F. R. Elliott.....	1849-51	Cleveland.
J. T. Pugsley.....	1850-51	Convenience.
S. Holloway.....	1850-51	St. Clairsville.
William Case.....	1852-53	Cleveland.
Philo Adams.....	1852-53	Huron.
R. W. Musgrave.....	1852-57	Sulphur Springs.
R. W. Steele.....	1853-56	Dayton.
William H. Ladd.....	1853-56	Richmond.
D. McIntosh.....	1853-54	Shalersville.
J. T. Worthington.....	1853-56	Chillicothe.
Joseph Sullivan.....	1854-55	Columbus.
John K. Greene.....	1854-57	Cincinnati.
James L. Cox.....	1854-55	Zanesville.
B. Stedman.....	1854-57	Cleveland.
Alexander Waddle.....	1855-60	South Charleston.
Abel Krum.....	1855-58	Cherry Valley.
Lucien Butties.....	1856-59	Columbus.
G. W. Baker.....	1856-57	Marietta.
John M. Milliken.....	1857-62	Hamilton.
Luther Smith.....	1857-58	West Liberty.
Thomas S. Webb.....	1857-58	Massillon.
Norton S. Townshend.....	1858-63	Avon.
L. Q. Rawson.....	1858-59	Fremont.
James M. Trimble.....	1858-61	Hillsboro.
John Rebel.....	1858-61	Lancaster.
D. E. Gardner.....	1859-64	Toledo.
William Dewitt.....	1859-64	Cleveland.
C. W. Potwin.....	1859-62	Zanesville.
T. C. Jones.....	1860-67	Delaware.
Henry B. Perkins.....	1860-63	Warren.
David Taylor.....	1861-66	Columbus.
Jacob Egbert.....	1862-63	Lebanon.
Nelson J. Turney.....	1862-69	Circleville.
D. McMillan.....	1863-70	Xenia.
W. R. Putnam.....	1863-64	Marietta.
William F. Greer.....	1864-67	Painesville.
James Fullerton.....	1864-69	Irwin Station.
William B. McClung.....	1864-71	Troy.
James W. Ross.....	1865-70	Perrysburg.
R. R. Donnelly.....	1865-68	Wooster.
James Buckingham.....	1865-72	Zanesville.
J. Park Alexander.....	1867-70	Akron.
Norton S. Townshend.....	1868-69	Avon.
William Lang.....	1868-71	Tiffin.
D. C. Richmond.....	1869-74	Sandusky.
R. P. Cannon.....	1870-75	Aurora.
James B. Jamison.....	1870-77	Cadiz.
L. G. Delano.....	1870-75	Chillicothe.
L. B. Sprague.....	1871-76	Springfield.
Simpson Harmount.....	1871-76	New Philadelphia.
John A. Warder.....	1871-76	Cleves.

MEMBERS OF THE STATE BOARD OF AGRICULTURE—Continued.

Names.	Years of Service, Inclusive.	Residence.
W. S. Hickox.....	1872-73	Mansfield.
B. W. Carlisle.....	1872-79	Hooker Station.
Justus C. Stephens.....	1873-74	Kenton.
John M. Pugh.....	1874-76	Columbus.
L. B. Wing.....	1875-80	Newark.
Russell C. Thompson.....	1875-76	Sylvania.
Leo Welts.....	1876-83	Wilmington.
D. L. Pope.....	1876-81	Welshfield.
Charles Smith.....	1877-80	Marion.
E. T. Stickney.....	1877-78	Republic.
A. E. Stone.....	1877-78	Gallipolis.
Peter Murphy.....	1877-80	Hughes' Station.
W. N. Cowden.....	1878-83	Quaker City.
R. Baker.....	1879-82	Elyria.
Arvine C. Wales.....	1879-82	Massillon.
R. H. Hyman.....	1880-81	Portsmouth.
O. P. Chaney.....	1880-82	Canal Winchester.
C. D. Bailey.....	1881-88	Gallipolis.
J. C. Levering.....	1881-86	Lebering.
William S. Foster.....	1881-88	Urbana.
L. B. Harris.....	1882-87	Upper Sandusky.
J. H. Brigham.....	1882-89	Delta.
L. N. Bonham.....	1883-86	Oxford.
H. Talcott.....	1883-87	Jefferson.
N. A. Sims.....	1883-85	Columbus.
T. P. Shields.....	1884-87	Watkins.
John Pow.....	1884-89	Salem.
S. H. Hurst.....	1884-89	Chillicothe.
J. J. Sullivan.....	1887-88	Millersburg.
Joseph H. Terrell.....	1887-88	New Vienna.
J. G. Russell.....	1887-90	Mt. Gilead.
H. G. Tryon.....	1888-91	Willoughby.
J. M. Black.....	1888-91	Hanover (Fairmount, W. Va.)
A. H. King.....	1889-96	Marion.
H. S. Grimes.....	1889-90	Portsmouth.
A. J. Clark.....	1889-98	Cambridge.
W. W. Miller.....	1889-94	Castalia.
J. W. Pollock.....	1890-93	Cedarville.
N. Ohmer.....	1890-95	Dayton.
L. G. Ely.....	1890-91	West Unity.
E. L. Hinman.....	1890-93	Columbus.
J. C. Bower.....	1891-98	Athens (Groveport)
George Lewis.....	1891-94	Van Wert.
Chester Bordwell.....	1892-93	Batavia.
F. A. Derthick.....	1892-95	Mantua.
J. T. Robinson.....	1894-97	Rockaway.
G. Liggett.....	1894-1901	Watkins.
J. N. Pringle.....	1894-95	Cardington.
E. C. Ellis.....	1895-98	Crestview.
Chester Bordwell.....	1895-1901	Batavia.
L. G. Ely.....	1896-1900	Fayette (West Unity).
H. S. Grimes.....	1896-1900	Portsmouth.
Albert Hale.....	1896-99	Mogadore.
J. S. Stuckey.....	1897-1903	Van Wert.
S. H. Ellis.....	1898-99	Waynesville.
D. J. Green.....	1899-1902	Renrock.
B. P. Baldwin.....	1899-1903	Tiger.
Samuel Taylor.....	1899-1907	Grove City.

MEMBERS OF THE STATE BOARD OF AGRICULTURE—Concluded.

Names.	Years of Service, Inclusive.	Residence.
T. E. Cromley.....	1900	Ashville.
*T. L. Calvert.....	1900-1906	Selma.
Wm. Miller.....	1901-1911	Gypsum.
J. L. Carpenter.....	1901-1906	Carpenter.
C. H. Ganson.....	1902	Urbana.
*A. P. Sandles.....	1902-1909	Ottawa.
R. O. Hinsdale.....	1903-1906	Wadsworth.
*E. L. Lybarger.....	1904-1906	Spring Mountain.
L. P. Bailey.....	1904-1909	Tacoma.
Dr. H. M. Brown.....	1906-1909	Hillsboro.
C. W. McFarland.....	1906-1911	Mt. Gilead.
L. W. Kilgore.....	1907-1910	London.
P. G. Ewart.....	1907	East Akron.
G. E. Jobe.....	1908-1910	Cedarville.
Jacob Dean.....	1909	Chester.
J. A. Beidler.....	1909-1912	Willoughby.
J. F. Cross.....	1909	Washington C. H.
E. L. Lybarger.....	1910	Warsaw.
L. W. Kilgore.....	1910	London.

*Resigned.

LIST OF OFFICERS OF THE OHIO STATE BOARD OF AGRICULTURE FROM ITS ORGANIZATION TO DATE; ALSO TABLES SHOWING PLACE OF HOLDING AND RECEIPTS OF EACH FAIR.

Yr.	President.	Treasurer.	Secretary.	Place of Fair.	Receipts.
1846	Allen Trimble.....	M. L. Sullivan.....	Samuel Medary.....	Cincinnati	
1847	Same.....	Same.....	M. B. Bateham.....	Columbus.....	
1848	Same.....	Same.....	Same.....		
1849	M. L. Sullivan.....	Samuel Medary.....	Same.....		
1850	Same.....	Same.....	Same.....		\$8,086 18
1851	Same.....	Same.....	W. M. Mather.....		8,204 09
1852	Arthur Watts.....	Arthur Watts.....	Same.....	Same.....	13,360 00
1853	Samuel Medary.....	M. L. Sullivan.....	Geo. Sprague.....	Dayton.....	13,996 37
1854	R. W. Musgrave.....	Joseph Sullivan.....	Same.....	Newark.....	8,824 58
1855	J. T. Worthington.....	Same.....	Same.....	Columbus.....	9,745 54
1856	William H. Ladd.....	Lucien Buttles.....	Same.....	Cleveland.....	16,684 20
1857	Alexander Waddle.....	Same.....	J. H. Klippart.....	Cincinnati.....	17,530 75
1858	John M. Millikin.....	Same.....	Same.....	Sandusky.....	9,997 70
1859	N. S. Townsend.....	Same.....	Same.....	Zanesville.....	8,958 82
1860	Alexander Waddle.....	Chas. W. Potwin.....	Same.....	Dayton.....	11,998 50
1861	Darwin E. Gardner.....	Same.....	Same.....	Dayton.....	8,036 18
1862	Thomas C. Jones.....	David Taylor.....	Same.....	Cleveland.....	11,260 64
1863	N. S. Townsend.....	Same.....	Same.....	Cleveland.....	11,142 00
1864	Nelson J. Turney.....	Same.....	Same.....	Columbus.....	12,620 54
1865	Same.....	Same.....	Same.....	Columbus.....	10,658 65
1866	Wm. B. McClung.....	Same.....	Same.....	Dayton.....	14,035 80
1867	Daniel McMillen.....	Jas. Buckingham.....	Same.....	Dayton.....	18,692 98
1868	James Pullington.....	Same.....	Same.....	Toledo.....	15,606 25
1869	Same.....	Same.....	Same.....	Toledo.....	19,606 50
1870	James W. Ross.....	J. Park Alexander.....	Same.....	Springfield.....	18,252 85
1871	William Lang.....	Jas. Buckingham.....	Same.....	Springfield.....	16,460 25
1872	James Buckingham.....	Simpson Harnoun.....	Same.....	Mansfield.....	19,149 45
1873	Lincoln G. Delano.....	Same.....	Same.....	Mansfield.....	22,517 50
1874	Same.....	Same.....	Same.....	Columbus.....	27,874 79
1875	R. P. Cannon.....	Same.....	Same.....	Columbus.....	20,539 30
1876	S. Harnoun.....	J. M. Pugh.....	Same.....	Columbus.....	11,909 61
1877	J. B. Jamison.....	Same.....	Same.....	Columbus.....	21,151 21
1878	J. M. Pugh.....	L. B. Wing.....	Same.....	Columbus.....	11,979 50
1879	E. W. Carlisle.....	Same.....	J. W. Fleming.....	Columbus.....	30,703 35
1880	L. B. Wing.....	D. L. Pope.....	W. I. Chamberlain.....	Columbus.....	23,682 20
1881	D. L. Pope.....	Leo. Welts.....	Same.....	Columbus.....	29,706 16
1882	R. Baker.....	W. N. Cowden.....	Same.....	Columbus.....	34,082 52
1883	W. N. Cowden.....	L. B. Harris.....	Same.....	Columbus.....	38,513 78
1884	W. S. Foster.....	Same.....	Same.....	Columbus.....	33,306 48
1885	C. D. Bailey.....	J. C. Levering.....	Same.....	Columbus.....	29,796 51
1886	L. N. Bonham.....	L. B. Harris.....	Same.....	Columbus.....	30,533 17
1887	J. H. Brigham.....	Same.....	L. N. Bonham.....	Columbus.....	30,902 10
1888	John Pow.....	J. G. Russell.....	Same.....	Centennial year no fair	
1889	Same.....	Same.....	Same.....	Columbus.....	19,637 41
1890	J. G. Russell.....	A. H. Kling.....	Same.....	Columbus.....	27,574 55
1891	J. M. Black.....	Same.....	Same.....	Columbus.....	33,878 64
1892	A. H. Kling.....	W. W. Miller.....	Same.....	Columbus.....	30,357 19
1893	J. W. Pollock.....	Same.....	Same.....	Columbus.....	19,350 93
1894	W. W. Miller.....	F. A. Dethick.....	Same.....	Columbus.....	27,260 25
1895	A. J. Clark.....	Same.....	W. W. Miller.....	Columbus.....	33,966 13
1896	J. C. Bower.....	A. J. Clark.....	Same.....	Columbus.....	22,531 20
1897	J. T. Robinson.....	J. C. Bower.....	Same.....	Columbus.....	30,869 43
1898	C. Bordwell.....	Same.....	Same.....	Columbus.....	31,023 36
1899	L. G. Ely.....	H. S. Grimes.....	Same.....	Columbus.....	33,749 17
1900	H. S. Grimes.....	L. G. Ely.....	Same.....	Columbus.....	31,521 35
1901	J. S. Stuckey.....	G. Liggett.....	Same.....	Columbus.....	51,576 50
1902	Samuel Taylor.....	T. L. Calvert.....	Same.....	Columbus.....	40,519 72
1903	T. E. Cromley.....	Same.....	Same.....	Columbus.....	49,232 75
1904	J. L. Carpenter.....	Same.....	Same.....	Columbus.....	37,632 97
1905	William Miller.....	Same.....	Same.....	Columbus.....	59,054 48
1906	A. P. Sandles.....	Samuel Taylor.....	T. L. Calvert.....	Columbus.....	61,443 45
1907	L. P. Bailey.....	Same.....	Same.....	Columbus.....	80,761 40
1908	H. M. Brown.....	C. W. McFarland.....	Same.....	Columbus.....	65,223 40
1909	L. W. Kilgore.....	Same.....	A. P. Sandles.....	Columbus.....	87,080 69
1910	C. W. McFarland.....	L. W. Kilgore.....	Same.....	Columbus.....	75,107 62
1911	C. H. Ganson.....	Same.....	Same.....	Columbus.....	92,257 70
1912	Jacob Dean.....	Same.....	Same.....	Columbus.....	105,758 10
1913	E. L. Lybarger.....	Same.....	Same.....	Columbus.....	99,391 35

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TRANSACTIONS

OF THE

Ohio State Board of Agriculture

For Year 1913

DEPARTMENT OF AGRICULTURE,
COLUMBUS, OHIO, January 31, 1913.

On call of President Dean, Board convened at 10 a. m., with all members responding to roll call.

Mr. J. A. Slade, president Butler County Agricultural Society, and Mr. W. C. Shepard, attorney, Hamilton, Ohio, appeared before Board reference law placing 20% limitation on encumbering fair ground property, and asking for good offices of Board to the end that said law might be amended so as to permit said Butler County Agricultural Society to raise sufficient funds for erection of grandstand. (Sec. 9908, 1908 Ohio Laws was referred to.)

It was moved by Mr. Lybarger, seconded by Mr. Kilgore, that it is the sense of Ohio State Board of Agriculture, that the secretary investigate the reasons for placing of 20% limitation on encumbering fair ground property, and to offer all encouragement to Butler and other county agricultural societies within the bounds of good judgment.

Motion carried.

Mr. Paul Moffit, secretary National Citizens' League, organization of business men, appeared before Board, requesting mailing list of farmers, for purpose of circulating literature of said organization.

Mr. Kilgore moved that it is the sense of this Board that mailing lists of this department should not be given out.

Seconded by Mr. Farnsworth.

On roll call, motion carried.

Secretary read minutes of meeting of November 26th. Same were approved by Board.

Secretary read communication from Mr. R. E. Mackenzie, secretary Columbus branch Boy Scout Movement, asking for use of State Fair Grounds for summer camp for boys.

Upon consideration of above request, secretary was instructed to advise Mr. Mackenzie that the privilege could not be granted.

Upon motion of Mr. Ganson, Board recessed at 12:20 for lunch.

Board reconvened at 1:30 p. m.

W. H. Caskey, 281 W. State street, Columbus, and other horsemen appeared before Board, requesting use of State Fair Grounds' race track for training purposes.

It was the sense of the Board that if 30 horses were guaranteed at \$1.00 each per month, Board would agree to furnish man to keep track in order.

Secretary presented to Board need of protection to hogs from cholera.

It was moved by Mr. McFarland, seconded by Mr. Farnsworth, that secretary be authorized to formulate resolutions, copy of same to be mailed to departments of agriculture, experiment stations and colleges of agriculture in the Middle West states and to the federal government, asking for co-operation in the matter of protection of swine against cholera.

Upon invitation, T. P. Riddle, Lima, Ohio, was present and gave demonstration of moisture test of two samples of corn. The test disclosed some very interesting and surprising results.

Secretary presented bill of Seymour Renick for \$47.08, same being for extras in construction of sewage disposal plant at State Serum Farm.

On motion of Mr. Lybarger, seconded by Mr. Kilgore, said bill was allowed.

On roll call, motion carried.

Also moved by Mr. Lybarger, seconded by Mr. Cromley, that bill of H. E. Miller for \$34.50, excess work on disinfecting tanks at State Serum Farm be allowed.

On roll call, motion carried.

At this point election of officers and appointment of employes was taken up.

Mr. Ganson nominated Mr. E. L. Lybarger for office of president for ensuing year. A poll was had and Mr. Lybarger was unanimously elected.

Mr. McFarland nominated Mr. P. G. Ewart for office of vice-president for ensuing year. A poll was had and Mr. Ewart was unanimously elected vice-president.

Mr. Cromley nominated Mr. Kilgore for treasurer for ensuing year. A poll was had and Mr. Kilgore unanimously elected.

On motion of Mr. Cromley, Board voted that salary of secretary be \$5,000 per annum.

On motion, Mr. A. P. Sandles was nominated for secretary of the Board for ensuing year. A poll was had and Mr. Sandles unanimously elected.

It was moved and seconded that salary of assistant secretary be fixed at \$2,600. Motion carried.

On motion, Mr. James W. Fleming was nominated for position of assistant secretary of the Board. A poll was had and Mr. Fleming unanimously elected.

It was moved by Mr. Farnsworth that Mr. N. E. Shaw be reappointed to position of chief inspector of nurseries and orchards at a salary of \$2,200. On roll call motion unanimously carried.

It was moved by Mr. Cromley, seconded by Mr. Dean, that Dr. Fischer be reappointed to position of state veterinarian for ensuing year at a salary of \$3,600 per annum. On roll call, motion carried.

On motion, Board voted to appoint the following employes for ensuing year:

E. J. Filbin, chief clerk.....	\$1,400
S. K. Johnson, fertilizer and feed clerk.....	1,400
H. F. Fricke, deputy inspector fertilizers and feeds.....	1,320
J. T. Maidlow, purchasing agent and statistician.....	1,800
J. M. Justice, clerk.....	1,200
Cora Dale, bookkeeper.....	1,000
Hannah Jones, stenographer.....	1,000
Margaret Hayes, stenographer.....	840
Eleanor Critchfield, stenographer.....	1,000
Dr. M. B. Lamb, specialist tuberculosis investigations.....	2,000
Dr. A. D. Fitzgerald, pathologist.....	2,000
H. C. Schwarz, superintendent Fair Grounds.....	1,000
I. N. Stroud, messenger.....	840

Board also authorized employment by secretary of four nursery and orchard inspectors at \$1,080 per annum and four at \$900 per annum; also necessary stenographers and clerical help for the department.

It was moved by Mr. Kilgore, seconded by Mr. Farnsworth, that secretary be authorized to employ necessary assistant state veterinarians, and sufficient farm help for State Serum Farm. Motion unanimously carried.

In the matter of contest for farm girls, it was moved by Mr. Farnsworth, seconded by Mr. Ewart, that Board appropriate \$10 for each county of the state, same to be used in part payment of expenses of one girl from each county to Washington. Contest to be along lines of butter-making, baking, sewing, canning and preserving, poultry raising, garden-making or lawn-making.

On roll call, motion unanimously carried.

No further business, the Board adjourned to meet at call of president.

FINANCIAL STATEMENT OHIO STATE FAIR, 1912.

The following statement shows receipts and disbursements of 1912 Ohio State Fair to date (November 25) :

RECEIPTS.

Privileges	\$12,102 50	
Space	5,331 00	
Horse entry fees.....	765 00	
Cattle entry fees.....	891 00	
Swine entry fees.....	438 50	
Sheep entry fees.....	137 00	
Poultry entry fees.....	1,048 00	
Speed entry fees.....	7,618 50	
Special premiums	270 00	
Fees, care of exhibits, woman's and art department.....	91 00	
Wagon tickets	150 00	
Deposits for county exhibits, farm products.....	90 00	
Miscellaneous	11 00	
Gate receipts, adults.....	64,343 00	
Gate receipts, children.....	1,954 00	
Gate receipts, night.....	1,232 75	
Grandstand receipts, general.....	6,964 25	
Grandstand receipts, reserved.....	2,101 95	
Miscellaneous gate receipts.....	216 65	
Total		\$105,757 10

DISBURSEMENTS.

Premiums	\$40,765 49	
Printing and advertising.....	12,709 07	
General Fair expense.....	11,138 14	
Attractions	7,339 00	
Judges	1,665 99	
Superintendents	1,328 63	
Clerks	629 50	
Miscellaneous	3,469 20	
Total		79,045 02
Profits		\$26,712 08

DEPARTMENT OF AGRICULTURE,
COLUMBUS, OHIO, March 12, 1913.

Ohio State Board of Agriculture met Wednesday, March 12, 3:00 p. m., with following members responding to roll call: Messrs. Lybarger, Ewart, Dean, Farnsworth, McFarland, Cromley, Cross, Perkins and Ganson. Mr. Kilgore absent.

Mr. C. C. McCue, Akron, Ohio, president Summit County Agricultural Society, appeared before Board in the matter of leasing grounds of Silver Lake Park Amusement Association for holding of Summit County Fair. Mr. McCue was assured by the Board that so long as its rules reference length of lease, etc., were complied with, the society would be entitled to its per capita allowance from the state.

Minutes of Board meeting of January 31st were read and approved.

Mr. Perkins presented his views in the matter of test of draft horses, and the secretary was instructed to communicate with draft horse registry associations to ascertain their views on three-weeks' test of draft horses. Said test to be given before holding of 1913 State Fair—horses to be judged at the Fair.

In the matter of special premium offers for State Fair, secretary was instructed to accept same when conditions do not conflict with rules or premiums of the Board.

Secretary read communication from Mr. Carl Williams, who requested live stock catalogue privilege at 1913 Fair.

It was moved by Mr. Ewart, seconded by Mr. Cromley, that secretary be authorized to contract with Mr. Williams for furnishing of official live stock catalogue on the same terms as those of 1912. Motion carried.

Secretary presented to Board following items for consideration and action of the Board—reference coming Fair:

Ladies' Free Day, free admission of Civil War veterans and children, and night shows, and the following action was taken:

Moved by Mr. Farnsworth, seconded by Mr. Dean, that Monday, September 1 be designated as Ladies' Free Day.

On roll call, motion carried.

It was moved by Mr. Ganson, seconded by Mr. Ewart, that on Friday, September 5th, all Civil War veterans and all children under 12 years of age be admitted free of charge at the Fair.

On roll call, motion carried.

Moved by Mr. Dean, seconded by Mr. McFarland, that night shows be held on State Fair Grounds four nights during State Fair. Motion carried.

Mr. Cromley moved to reconsider the motion. Seconded by Mr. Ewart. Motion carried.

Moved by Mr. Cromley, seconded by Mr. Ganson, to strike out word "four" and insert "five."

On roll call, motion carried.

In the matter of Farm Boys' Camp at the Fair, it was moved by Mr. Farnsworth, seconded by Mr. Dean, that Board pay expenses of two farm boys who have not heretofore received free trip to Ohio State

Fair, and if free trip to Washington is offered in county, boy to be eligible to compete for free trip to State Fair must be entered in corn contest.

On roll call, Board voted unanimously.

At this point Board recessed until 8:30 a. m. Thursday, March 13th.

Board reconvened at hour set with all members present except Mr. Kilgore.

President Lybarger announced following appointments to the several State Fair departments:

First Dept. (Horses)—Jacob Dean, member in charge.

C. H. Ganson, assistant member in charge.

Second Dept. (Cattle)—J. B. Perkins, member in charge.

Third Dept. (Swine)—J. F. Cross, member in charge.

Fourth Dept. (Sheep)—C. W. McFarland, member in charge.

Fifth Dept. (Poultry)—C. W. McFarland, member in charge.

Sixth Dept. (Farm Products)—W. G. Farnsworth, member in charge.

Seventh Dept. (Fruits, Plants and Flowers)—W. G. Farnsworth, member in charge.

Eighth Dept. (Machinery and Implements)—P. G. Ewart, member in charge.

Ninth Dept. (Mechanics' and Manufacturers' Products)—C. H. Ganson, member in charge.

Tenth Dept. (Merchandise, Music, Etc.)—C. H. Ganson, member in charge.

Eleventh Dept. (Woman's Work)—T. E. Cromley, member in charge.

Twelfth Dept. (Fine Arts)—T. E. Cromley, member in charge.

It was moved by Mr. Ganson, seconded by Mr. Farnsworth, that president's nominations be confirmed. Motion carried.

President Lybarger presented to Board need of protection to growers of ginseng and golden seal. In accordance with suggestions of Mr. Lybarger, it was moved by Mr. Dean, seconded by Mr. Farnsworth, that H. B. 480, by Mr. Criswell, protecting interests of ginseng and golden seal growers be endorsed by Ohio State Board of Agriculture and recommended for passage by Ohio Legislature. Motion unanimously carried.

Mr. Frank P. Edson, Van Wert, Ohio, appeared before Board, inviting members to meet delegation of Van Wert county corn boys scheduled to arrive in Columbus 12:20 Thursday, and accompany them to Memorial Hall, meeting place of Rural Life and Good Roads Congress. Board accepted the invitation.

Secretary submitted to the Board report of Dr. Fischer, state veterinarian, and recommendations for payment to owners of slaughtered animals.

It was moved by Mr. Ganson, seconded by Mr. Ewart, that Board recommend payment to owners of appraised slaughtered animals, and submit same to the governor in accordance with sections 1100, 1101 and 1102 of General Code.

On roll call, motion unanimously carried.

T. J. Ludwig, Columbus, Ohio, and other exhibitors in floral department of Horticultural Hall at State Fair, appeared before Board requesting larger premiums for cut flowers. Mr. Ludwig was advised that matter would be given every consideration before revision of premium list.

Wm. Springer, Columbus, Ohio, et al., representing Market Growers' Association, made request that large tables be placed in Agricultural Hall at State Fair Grounds; that present space is inadequate; also requesting larger appropriations for premiums.

Consideration of above matters deferred to another meeting of the Board.

Mr. Hartman, Bainbridge, Ind., vice-president of Association of Tunis Sheep Breeders, appeared on behalf of said association requesting class in Ohio State Fair premium list.

Mr. C. M. Jones, Plain City, exhibitor in horse department, requested that rules be so fixed as to permit American bred horses to show in open class, or in other words, the privilege of showing same horse twice.

John K. Scott, Sutter, Cal., appeared before Board with urgent request for granting of privilege to live stock exhibitors of choosing their judges for State Fair.

Mr. S. M. Cleaver, representing American-Delaine Merino Sheep Breeders' Association, requested that Board incorporate rule in premium list providing "that all sheep exhibited must be sheared closely and evenly on or after January 1st of the year in which said sheep are exhibited, and all lambs must be yeaned on or after January 1st of the year in which exhibited." Mr. Cleaver announced that association had set aside \$108 for special prizes and would also offer three silver cups.

Mr. S. H. Bell, Wooster, Ohio, exhibitor in horse department at State Fair, came before Board with request that class for French coach horses be eliminated or combined with German coach horses, and that larger premiums be offered for the more important breeds.

Mr. J. W. Wuichet, representing exhibitors of Hampshire swine at State Fair, requested better quarters for their breed than were allotted last year; also asking that breeder of Hampshire swine be selected as judge.

Mr. M. D. Eversole, Wellington, Ohio, exhibitor of Berkshires, requested increase of premiums for swine under one year old.

Mr. C. Betcher, Canal Dover, Ohio, representing Ohio Gladiolus Club, appeared with request for larger premiums on cut gladiolus.

At this point Board was favored with a call by General Jacob Coxey, of good roads fame, Mr. Dunlap, of the Iowa Department of Agriculture and Senator Alsdorf, of Ohio, also good roads advocates.

Mr. L. H. Lightcap, Columbus representative of the International Harvester Co., expressed readiness of his company to assist in making

1913 State Fair a success, and offering to arrange for services of Prof. Holden, now in the employ of the harvester company, to lecture at the Fair on growing corn. Mr. Lightcap requested sufficient space for exhibit of an extensive nature.

Dr. C. L. Harrod, E. State street, Columbus, representing Sliger Bros.' Co., manufacturers of hog cholera remedy "Skidoo," appeared before Board, asking co-operation and opportunity for fair trial of the remedy in districts infected with hog cholera.

It was moved and seconded that matter of hog cholera remedy be referred to Dr. Fischer, state veterinarian, with request that he report at next meeting of the Board. Motion carried.

Mr. Shaw and Mr. Cook, exhibitors of Delaine-Merino sheep at Fairs, stated that they represented larger number of breeders and exhibitors and that it was the desire of the majority to let rules reference time of shearing sheep stand as at present.

Mr. Leonard Lanius, Cincinnati, Ohio, president Ohio branch American Poultry Association, came before Board with request for better quarters for display of poultry at Ohio State Fair; also asking that Ohio men be chosen as judges of poultry.

Mr. Ross, of Zanesville, Ohio, requested class for mules and jacks in Ohio State Fair premium list.

Mr. P. G. Ross, Mansfield, Ohio, and other live stock men, asked co-operation of Board in securing appropriation from legislature for purpose of making live stock exhibit at Panama-Pacific Exposition, San Francisco, 1915.

Mr. Eversole, Wellington, suggested that committee of five be appointed to distribute money among live stock men for exhibition purposes at San Francisco—four representing live stock men and the fifth to be secretary of Ohio State Board of Agriculture.

Mr. Palmer, Pataskala, Ohio, president Ohio Shropshire Breeders' Association, appeared reference classification for Ohio bred Shropshire, and stated that his association was offering special premiums.

In the matter of appropriation for live stock exhibit at the San Francisco Exposition, 1915, it was moved by Mr. Dean, seconded by Mr. Cromley, that State Board of Agriculture favors liberal appropriation to assist live stock men who may desire to exhibit at said exposition, and that secretary be authorized to prepare resolution to the legislature reference same. Motion unanimously carried.

At this point Dr. Fischer gave brief synopsis of his report of work done by live stock division for last two years.

It was moved by Mr. Cromley, seconded by Mr. Perkins, that 1910 and 1911 annual report of Ohio State Board of Live Stock Commissioners be approved for submission to the governor. Motion carried.

After a thorough discussion as to best methods for eradication of hog cholera, it was moved by Mr. Ewart, seconded by Mr. Cross, that

Board request appropriation by the legislature of \$25,000 for extermination of hog cholera in one county or township of the state, details to be left in hands of the secretary and Dr. Fischer. Motion carried.

It was moved by Mr. Dean, seconded by Mr. Cromley, that it shall be the policy of this Board to send out hog cholera serum alone to veterinarians and owners of swine requesting same. Those who want the virus must get it through the state veterinarian and have it administered. On roll call, Board voted unanimously in favor of same.

No further business, Board adjourned to meet April 10, 1913.

DEPARTMENT OF AGRICULTURE,
COLUMBUS, OHIO, April 10, 1913.

State Board of Agriculture met at 2:00 p. m., with all members responding to roll call except Messrs. Lybarger and Perkins. Mr. Ewart presiding.

Minutes of meeting of March 12th read and approved.

It was moved by Mr. Ganson, seconded by Mr. Cross, that \$100 be appropriated for prizes, to be competed for at State Corn Show, Mansfield, Ohio, and by boys who enter corn-growing contest. On roll call, motion carried.

Secretary read letter from J. H. McMullan, offering \$85 as part payment of unpaid guarantee of \$200 made by Ohio Rambouillet Sheep Breeders' Association. After discussion, it was deemed the sense of the Board, that on account of the business of the 1911 Fair having been closed, partial payment be declined.

Mr. A. E. Kimberly, sanitary engineer, appeared before Board and stated that construction of sewerage system, sewage disposal and disinfecting tanks and equipment, as per contract made and entered into, had been fully completed, and as constructed, met the approval of the State Board of Health.

It was moved by Mr. Ganson, seconded by Mr. Cromley, that bill of Mr. Kimberly, for \$50, balance due on bill of \$200, be allowed. On roll call, motion carried.

Messrs. Oscar and Howard Townsend appeared before Board in the matter of selling a building 20x80 feet, covered with slate roof, surrounded by cement walk 5 feet wide, and brick floor in one-half of said building. Said building was erected by Messrs. Townsend in 1888, and additions having been made thereto and kept in good repair by these parties. Messrs. Townsend stated to the Board that this building represented an investment of \$2,400, for which they agreed to accept \$1,000, if the Board could secure appropriation from the legislature for the purchase of same.

The building committee after consideration of same recommended

that said building be purchased at agreed price of \$1,000, and that the legislature be asked to appropriate such amount for this purpose.

Moved by Mr. Kilgore, seconded by Mr. Farnsworth, that report of committee be accepted. On roll call, motion carried.

Mr. Lightcap, local representative of International Harvester Co., appeared before Board, requesting ample open space for exhibition purposes at Ohio State Fair.

Upon motion of Mr. Ganson, seconded by Mr. Farnsworth, matter was referred to Mr. Ewart, member in charge machinery department, and Assistant Secretary Fleming. Motion carried.

Chas. Hayes, Columbus Driving Park, and Frank Hedrick, Jamestown, Ohio, appeared before Board requesting stake races for coming Fair. Matter was referred to members Dean, Ganson and Fleming, and after consideration of same they reported adversely on the grounds that past experience with stake races had been unsatisfactory, and also on account of lateness of the season.

On motion of Mr. Cromley, seconded by Mr. McFarland, report of committee was accepted.

Mr. J. T. Windhorst, St. Louis, Mo., appeared before Board in reference to lighting of Ohio State Fair Grounds for 1913 Fair.

It was moved by Mr. McFarland, seconded by Mr. Cross, that secretary be authorized to contract with Windhorst & Co. to furnish lights for 1913 State Fair for \$2,400. On roll call, motion carried.

Dr. Fischer, state veterinarian, reported in the matter of hog cholera remedy, "Skidoo," manufactured by Sliger & Co. He stated that in his opinion, it is impracticable for the State Board of Agriculture to take up this remedy or endorse it at this time.

At this point revision of premium list for State Fair was taken up.

The following changes were agreed to in horse department:

1. Roadsters (Standard and Non-Standard)—Second premiums in Classes 1, 2, 6, 11, 14, 15, 19 and 24 decreased from \$12 to \$10; second, third and fourth premiums in Classes 10 and 23 increased \$1.
2. American Carriage Horses—Conditions governing entries eliminated.
3. French and German coach classes combined, and first premiums decreased.
4. Clydesdales and Shires eliminated.
5. American Bred Draft Horses—To be registered in stud book "of their breed," instead of "recognized by the government."
6. Hackneys eliminated.

On motion of Mr. Cromley, seconded by Mr. Farnsworth, members in charge of horse department, secretary and assistant secretary were instructed to arrange for night horse show.

Board recessed until 7:30 p. m., at which time consideration was

given to speed program for the Fair. The 1912 program was approved for this year with the exception of 2:22 trot and 2:23 pace, purses for which were decreased \$100.

On account of absence of Mr. Perkins, member in charge of cattle department, it was deemed best to defer action until Friday the 11th, at which time he was expected to report.

After full discussion of sheep and poultry departments, it was understood and agreed that premiums in both departments remain the same as last year.

Board adjourned to meet at 9 a. m., Friday, April 11th.

All members responded to roll call on morning of the 11th, except Mr. Lybarger.

On recommendation of Mr. Cross, member in charge of swine department, class for "Best Boar, Any Age or Breed" and "Best Sow, Any Age or Breed," will be incorporated in list.

Moved and seconded that \$300 be allowed for exhibition of dairy products. Arrangements to be made by secretary and dairyman of recognized standing. Motion carried.

It was moved and seconded that suggestions of Mr. Farnsworth reference horticultural department be adopted. Carried.

Moved by Mr. Perkins, seconded by Mr. Ganson, that Royal Grand Champion Class be opened for "Best Beef Bull," "Best Beef Cow;" "Best Dairy Bull," "Best Dairy Cow," to be shown on Monday, September 1; prizes to be trophy cups. On roll call, motion carried.

It was moved and seconded that class be opened for "Best Draft Stallion, Any Age or Breed;" "Best Mare, Any Age or Breed." Carried.

On motion of Mr. Ganson, seconded by Mr. Cromley, following classes for mules will be incorporated in premium list: "Best Jack, Any Age, \$15, \$10, \$5;" "Best Mare Mule, Any Age, \$15, \$10, \$5;" "Best Pair of Mules, Three Years Old or Over, Shown to Wagon, \$30, \$20, \$10." Motion carried.

In the matter of funds for advertising Ohio State Fair, it was moved by Mr. Cromley, seconded by Mr. Kilgore, that \$15,000 be set aside for said purpose. On roll call, motion carried.

Upon recommendation of Mr. Perkins, premiums and classes in cattle department will remain same as in 1912 list, with exception that "Devons" be eliminated.

It was agreed that bids for concessions at the Fair be received and sold at next meeting of the Board.

It was the sense of the Board that information bureau be maintained on State Fair Grounds during the Fair.

Moved by Mr. Farnsworth, seconded by Mr. Dean, that new refrigerator be purchased for Dairy Building, and old one in Agricultural Building disposed of. Motion carried.

Moved by Mr. McFarland, seconded by Mr. Farnsworth, that orders be placed for full equipment of State Serum Plant as soon as funds are available. Motion carried.

Moved by Mr. Farnsworth, seconded by Mr. Cromley, that secretary be authorized to advertise for bids for outside fence and race track fence, Fair Grounds. Roll call showed a unanimous vote.

No further business, Board adjourned.

MECHANICSBURG, OHIO, May 28, 1913.

Pursuant to call of President Lybarger, following members responded to roll call: Messrs. Lybarger, Cross, Dean, McFarland, Cromley, Farnsworth, Kilgore, Ewart and Ganson.

On motion of Mr. Ganson, seconded by Mr. Cross, the Grounds and Buildings Committee was authorized to construct a gas main to serum farm. Motion carried.

G. W. Hamilton, Dayton, Ohio, representing Hunt, Helm, Ferris & Co., appeared before Board in reference to installing litter carrier and sanitary hog troughs at State Serum Farm. Dr. Fischer stated that these were necessary; they were also recommended by Architect Holbrook. Mr. Hamilton proposed to install same complete for \$2,000, as per plans and specifications submitted.

On motion of Mr. Kilgore, seconded by Mr. Ganson, secretary was authorized and instructed to enter into contract for said litter carriers and hog troughs, with the proviso that the work be completed by August 1st. On roll call, Board voted unanimously.

Architect Holbrook presented plans, specifications and bids for refrigerator plant at State Serum Farm.

The Automatic Refrigerator Co., Hartford, Conn., offered to install same complete for sum of \$2,550. Dr. Fischer and Architect Holbrook recommended acceptance of same. On motion of Mr. Ganson, seconded by Mr. Dean, above proposition was accepted.

The Armstrong Cork Co., Pittsburgh, Pa., presented proposition for insulating serum room at state plant. They proposed to install this work complete for \$1,085. On motion of Mr. McFarland, seconded by Mr. Cross, proposition was accepted and secretary instructed to enter into contract.

The matter of furniture and laboratory supplies for State Serum Farm was considered. On motion of Mr. Ganson, seconded by Mr. Farnsworth, this matter was referred to secretary with power to act.

On motion of Mr. Cross, seconded by Mr. Cromley, secretary was authorized to advertise for bids for sale of concessions at 1913 State Fair.

No further business Board adjourned.

DEPARTMENT OF AGRICULTURE,
COLUMBUS, OHIO, June 19, 1913.

Pursuant to call Ohio State Board of Agriculture met at 7:30 p. m. Following members responded to roll call: Messrs. Cross, Cromley, Ganson, McFarland, Kilgore, Lybarger and Ewart.

Minutes of the two previous meetings were read and approved.

The following bids for concessions, 1913 Ohio State Fair, were opened and read:

EXCLUSIVE NOVELTIES.

Desplenter Bros., Chicago.....	\$650
Grant Wooley, Urbana.....	680
J. H. Cohen, Cincinnati.....	225

EXCLUSIVE CANDY, CORN AND PEANUTS.

C. Sharrock, Quaker City, Ohio, ground locations only.....	\$917
C. Sharrock, Quaker City, Ohio, including ground and three building locations	1,000

EXCLUSIVE ICE CREAM CONES.

Charles Schullman, Columbus, Ohio.....	\$530
C. Sharrock, Quaker City, Ohio.....	577

SCORE CARDS.

Robert Bryson, Xenia.....	\$301
E. L. Huffman, Camden, Ohio, special paper and printing.....	200
E. L. Huffman, without restriction as to printing.....	250

CIDER.

Otto Wendel, U. S.....	\$155
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LUNCH BOOTHS UNDER GRANDSTAND.

C. C. Black, Columbus.....	\$160
Otto Wendel, U. S.....	130
C. W. Howard, Columbus.....	150
Methodist Protestant Church.....	150
Glenwood M. E. Church.....	200
H. L. Hinkle.....	140
L. Lohrbach, Columbus, three booths.....	500

LUNCH BOOTHS.

I. N. Whipps, Columbus; east of Woman's Building; north of Administration Building; building at race track.....	\$350
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SIGN WRITING.

B. B. Sign Co., Columbus..... \$110

DINING HALLS.

W. C. T. U..... \$300
 W. C. T. U..... 300
 Grace M. E. Church..... 300

LUNCH BOOTHS.

L. Lohrbach, Columbus, building south of grandstand..... \$350
 L. Lohrbach, Columbus, building at race track..... 50

ORANGE DRINKS.

W. H. Arnold, Columbus, two building locations..... \$225

JEWELRY.

W. H. Arnold, Columbus, two building locations..... \$240

FRUIT.

Bert Williams, Columbus..... \$150
 A. Thall, Columbus..... 165

HORSE BUILDING REFRESHMENT BOOTHS.

Ada Scharf, Columbus..... \$30

After due consideration the Board accepted the following bids:

L. Lohrbach	\$500
W. H. Arnold.....	225
W. H. Arnold.....	240
Grace M. E. Church.....	300
E. L. Huffman.....	200
B. B. Sign Co.....	110
W. C. T. U.....	300
W. C. T. U.....	300
Ada Scharf	80
Grant Wooley	680
C. Sharrock.....	917
C. Sharrock.....	577
I. N. Whipps.....	350
C. C. Black.....	100
C. W. Howard.....	150
Methodist Protestant Church.....	150
Otto Wendel	155

All other bids were rejected and the secretary authorized to make sale of all remaining concessions to best advantage of Fair.

The selection of a county for experimental work in the control and eradication of hog cholera was discussed. The following counties were represented and presented claims:

Van Wert county, H. M. Gee; Putnam county, Preble county, S. E. Morton, Camden, Roscoe Gard, Camden; Fairfield county, Joseph Bishop, Millersport, Bert Click; Fayette county, Hon. C. A. Reid, Washington C. H., Reuben Rankin, Parrotts.

After having heard all counties represented, Board proceeded to secret ballot. First ballot, Fayette, 5; Preble, 1; Pickaway, 1. Second ballot, Fayette, 6; Preble, 1. On motion of Mr. Ewart, Fayette county was selected unanimously.

H. C. Holbrook, architect, presented bill for balance due on services for construction work at State Serum Farm. On roll call the bill was approved and ordered paid.

Secretary presented franchise from Licking county commissioners in reference to laying natural gas pipe from main gas line to State Serum Farm, a distance of approximately two miles. The franchise was approved and ordered spread upon the minutes of the Board.

The following bids for natural gas pipe for State Serum Farm were opened and read:

Scioto Valley Supply Co.....	\$8 09 per 100 feet.
Columbus Supply Co.....	8 55 per 100 feet.
Potts-Rine Supply Co.....	7 88 per 100 feet.

On motion of Mr. Cromley, it was agreed that bid of Potts-Rine Company be accepted, provided pipe be approved by gas company. Should they fail to so approve, the bid of the Scioto Valley Supply Company should be accepted.

Architect Holbrook and Professor Erf, O. S. U., made report in reference to improvements and installation of equipment in Dairy Building, State Fair Grounds, at a cost of from \$1,000 to \$1,250. The matter was referred to the secretary and architect, with power to act.

On motion of Mr. Kilgore, the secretary was authorized to receive bids for equipment of serum farm as recommended by architect.

Secretary presented and read letter from Dr. Fischer in reference to laboratory supplies at State Serum Farm. Mr. Kilgore moved that Dr. Fischer and Secretary Sandles be authorized and instructed to visit leading hospitals and laboratories in order to intelligently purchase these supplies. The motion was duly seconded by Mr. Cromley, and on roll call was unanimously adopted.

Secretary presented proposition from Hart's Boys Band, Hicksville, Ohio, reference to engagement, 1913 Ohio State Fair. On motion of Mr. Ewart, duly seconded by Mr. Cross, the matter was referred to the president and secretary, with power to act.

C. H. Duffield, Chicago, representing Pain's Fireworks Company, appeared before Board in reference to pyrotechnic spectacle, 1913 Ohio State Fair. After hearing his proposition, Mr. Cromley moved that the matter be referred to the president and secretary, with power to act.

The motion was duly seconded by Mr. Ewart, and on roll call, was unanimously adopted.

The matter of painting Poultry Building was referred to the secretary and Member McFarland.

At 11 o'clock p. m., on motion of Mr. Kilgore, the Board adjourned.

DEPARTMENT OF AGRICULTURE,
COLUMBUS, OHIO, July 9, 1913.

The State Board of Agriculture met Wednesday morning at 10 o'clock, July 9th, with following members present: Messrs. Lybarger, Ewart, Perkins, Kilgore, Cromley, Cross, Ganson, Farnsworth. Messrs. Dean and McFarland absent.

Capt. W. H. Fisher, Delaware, Ohio, appeared before Board in reference to a bill of \$72 for treatment of hogs for cholera. Capt. Fisher claimed his hogs contracted cholera from two that had been given double treatment by a representative of the State Board of Agriculture, and asked that Board release him from payment of at least part of the bill.

It was moved by Mr. Kilgore, and duly seconded, that the matter be taken under advisement and Capt. Fisher advised later. Motion carried.

At this point Board recessed to make an inspection tour of State Fair Grounds.

Twelve oclock noon being the hour set for receiving and opening bids for erection of fences on State Fair Grounds, Board reconvened at that hour.

The following bids were opened and read:

Name of Firm.	Race Track.	Ground Enclosure.	Grand Total.
Martin Krumm, Columbus, Ohio.....	Labor..... \$712 90	\$2,281 25	
	Material..... 1,200 00	6,200 00	
Total	\$1,912 90	\$8,461 25	\$10,374 15
Enterprise Iron Works, Indianapolis, Ind.....	Labor..... \$365 00	\$975 00	
	Material..... 1,431 30	7,684 25	
Total	\$1,796 30	\$8,659 25	10,455 55
Champion Iron Co., Kenton, Ohio.....	Labor..... \$800 00	\$4,000 00	
	Material..... 886 83	4,146 13	
Total	\$1,686 83	\$8,146 13	9,832 96
Cincinnati Iron Fence Co., Cincinnati, Ohio.....	Labor..... \$300 00	\$1,062 00	
	Material..... 1,060 00	6,100 00	
Total	\$1,360 00	\$7,162 00	8,522 00
Van Dorn Iron Works, Cleveland, Ohio.....	Labor.....		
	Material.....		
Total	\$2,609 50	\$9,398 00	12,007 50
J. S. Roof, Ashville.....	Labor..... \$573 87	\$925 25	
	Material..... 1,540 60	8,067 85	
Total	\$2,114 47	\$8,993 10	11,107 57
E. A. Patterson, Columbus, O.....	Labor..... \$850 00	\$2,250 00	
	Material..... 2,680 00	5,680 00	
Total	\$3,530 00	\$7,930 00	11,460 00

It was moved by Mr. Ganson, seconded by Mr. Farnsworth, that bid of Cincinnati Iron Fence Co. for \$8,522, being the lowest and best bid, be accepted and secretary authorized to execute contract. On roll call, motion was unanimously adopted.

The Yardley Screen & Weather Strip Co., Columbus, Ohio, submitted bid of \$325 for furnishing of screens for windows of serum farm buildings.

Howald & Co., Columbus, presented bids of \$105.25 and \$147.38, for furnishing of window shades for serum farm buildings; Moore, Karl & Co., bid of \$111.02; Green-Joyce & Co. presented four propositions, viz.: \$85.38, \$69.97, \$35.78 and \$29.80.

It was moved by Mr. Perkins, seconded by Mr. Farnsworth, that secretary be authorized to act on question of window shades. Motion carried.

It was moved by Mr. Farnsworth, seconded by Mr. Cross, that a committee of three be appointed to confer with Governor Cox and Mr. Bushnell, of Springfield, in reference to horse show at State Fair. Motion carried. President Lybarger named Messrs. Dean, Ganson and Perkins.

At 12:45, on motion of Mr. Cromley, Board recessed for lunch.

Board reconvened at 2:00 p. m. Minutes of meeting of June 19th read and approved.

Secretary presented bill of Scioto Valley Supply Co. for \$1,234.21 for gas line pipe for State Serum Farm.

Moved by Mr. Ganson, seconded by Mr. Ewart, that same be allowed. On roll call, motion carried.

Secretary reported need of automobile for use in the suppression and eradication of hog cholera.

On motion of Mr. Ganson, seconded by Mr. Ewart, secretary authorized to purchase automobile. On roll call, motion carried.

Secretary submitted report of Committee on Attractions for Ohio State Fair, and recommended that the \$5,500 proposition of Pain's Fireworks Co., Chicago, for fireworks and special attractions in front of grandstand be accepted.

On motion of Mr. Ganson, seconded by Mr. Perkins, report of committee was adopted. On roll call, motion carried.

Bids of band organizations to furnish music at State Fair were read by secretary, as follows:

John C. Weber Band, Cincinnati.....	30 men, \$1,500
Fourth Regiment Band, Columbus.....	30 men, 1,060
Hart's Boys' Band, Hicksville, (for four days, Board to furnish tents, cots and meals).....	50 boys, 400

Moved by Mr. Kilgore, seconded by Mr. Farnsworth, that bid of Fourth Regiment Band, being lowest and best, be accepted. On roll call, motion carried.

Moved by Mr. Ewart, seconded by Mr. Farnsworth, that the proposition of Hart's Boys' Band be accepted. On roll call, motion carried.

Moved and seconded that \$500 be set aside for purpose of decorating buildings on State Fair Grounds. On roll call, motion was unanimously adopted.

No further business, Board adjourned.

Official Report
OF THE
Ohio Department of Agriculture

ON THE
Condition of Wheat and Distribution of Live Stock March, 1913

The following report is compiled from returns received from 718 official correspondents of the department:

WHEAT—Condition compared with an average..... 87 per cent.

NUMBER OF STALLIONS—

Thoroughbred runners, 64; trotters, 751; Foreign bred draft, 952; American bred draft, 1,335; other pure breeds, 249; unknown breeding, 734.

PURE BRED BULLS (All breeds)..... 7,433

PURE BRED BOARS (All breeds)..... 11,627

PURE BRED RAMS (All breeds)..... 14,821

PER CENT. OF DIFFERENT BREEDS OF CATTLE—

Shorthorns, 16; Aberdeen Angus, 2; Herefords, 2; Polled Durhams, 2; Jerseys, 17; Holsteins, 7; Red Polls, 2; Guernseys, 1; Other pure breeds, 1; Grades, 37; Natives, 13.

PER CENT. OF DIFFERENT BREEDS OF SWINE—

Berkshires, 9; Poland Chinas, 27; Chester Whites, 17; Duroc Jerseys, 19; Yorkshires, 2; Hampshires, 1; Tamworth, 1; Unknown, 24.

PER CENT. OF DIFFERENT GRADES OF SHEEP—

Merinos, 3; French Merinos, 17; Cotswolds, 3; Oxford Downs, 2; Shropshire Downs, 15; Hampshire Downs, 1; South Downs, 4; Lincolns, 1; Dorsets, 1; Mixed Breeds, 26; Grades, 27.

NORTHEAST SECTION.

OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF WHEAT AND DISTRIBUTION OF LIVE STOCK, MARCH 1, 1913.

Counties.	Number of Stallions.					No. of Pure Bred Bulls, Boars, Rams.			Per Cent. of Different Breeds of Cattle.																					
	No. of Townships Reported.	Thoroughbred Runners.				No.	Unknown Breed-Ing.				No.	Bulls (All Breeds).	Boars (All Breeds).	Rams (All Breeds).	Shortorns.	Aberdeen-Angus.	Herefords.	Polled Durhams.	Galloways.	Jerseys.	Holsteins.	Red Polls.	Guernseys.	Ayrshires.	Devons.	Brown Swiss.	Other Pure Breeds.	Grades.	Natives.	
Ashland.....	9	.....	6	7	11	5	9	100	105	356	14	2	2	.....	.....	.....	14	1	.....	.....	.....	14	1	1	.....	.....	.....	3	37	14
Ashtabula.....	13	.....	12	10	24	8	11	187	74	126	5	.....	1	.....	.....	.....	16	4	.....	.....	.....	18	4	2	.....	.....	.....	1	41	16
Carroll.....	13	.....	16	11	13	.....	5	88	86	97	21	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	9	4	1	.....	.....	.....	.....	56	8
Columbiana.....	13	1	17	13	21	.....	9	159	91	102	4	.....	.....	.....	.....	.....	16	.....	.....	.....	.....	10	4	1	.....	.....	.....	.....	54	10
Coshocton.....	14	.....	3	8	10	.....	2	109	130	614	25	3	2	.....	.....	.....	13	4	.....	.....	.....	11	1	1	.....	.....	.....	.....	36	13
Cuyahoga.....	9	.....	.....	1	4	.....	8	44	21	33	5	.....	.....	.....	.....	.....	11	.....	.....	.....	.....	13	1	1	.....	.....	.....	.....	44	28
Erie.....	7	.....	2	5	12	.....	1	38	56	70	15	1	3	.....	.....	.....	16	.....	.....	.....	.....	16	1	2	.....	.....	.....	.....	25	16
Geauga.....	9	.....	2	1	12	.....	1	178	41	59	1	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	5	2	1	.....	.....	.....	.....	55	1
Harrison.....	13	.....	8	10	18	.....	2	81	73	459	32	.....	.....	.....	.....	.....	19	.....	.....	.....	.....	19	1	3	.....	.....	.....	.....	37	4
Holmes.....	13	.....	13	16	18	.....	.....	90	97	67	1	.....	.....	.....	.....	.....	13	.....	.....	.....	.....	13	1	2	.....	.....	.....	.....	35	8
Huron.....	11	1	5	6	10	.....	3	69	130	452	20	.....	.....	.....	.....	.....	10	.....	.....	.....	.....	10	3	1	.....	.....	.....	.....	56	5
Jefferson.....	11	1	5	6	13	.....	.....	55	158	14	.....	.....	.....	.....	.....	.....	23	.....	.....	.....	.....	23	13	4	.....	.....	.....	.....	27	19
Knox.....	13	.....	3	6	8	.....	3	84	109	361	20	.....	.....	.....	.....	.....	17	.....	.....	.....	.....	17	4	2	.....	.....	.....	.....	40	4
Lake.....	7	.....	7	7	.....	.....	.....	38	22	19	.....	.....	.....	.....	.....	.....	23	.....	.....	.....	.....	23	23	4	.....	.....	.....	.....	43	6
Lorain.....	12	.....	1	7	11	.....	6	116	48	116	4	.....	.....	.....	.....	.....	7	.....	.....	.....	.....	23	1	1	.....	.....	.....	.....	45	17
Mahoning.....	9	.....	10	3	14	.....	5	138	81	148	12	.....	.....	.....	.....	.....	33	.....	.....	.....	.....	23	1	1	.....	.....	.....	.....	28	8
Medina.....	9	.....	8	15	5	.....	4	94	97	162	.....	.....	.....	.....	.....	.....	17	.....	.....	.....	.....	15	1	4	.....	.....	.....	.....	46	.....
Portage.....	16	.....	13	6	12	.....	3	185	57	179	9	.....	.....	.....	.....	.....	15	.....	.....	.....	.....	15	15	2	.....	.....	.....	.....	44	10
Richland.....	13	.....	9	9	18	.....	.....	89	118	201	.....	.....	.....	.....	.....	.....	17	.....	.....	.....	.....	17	9	1	.....	.....	.....	.....	44	10
Stark.....	15	1	12	12	13	.....	6	80	65	40	12	.....	.....	.....	.....	.....	16	.....	.....	.....	.....	16	16	2	.....	.....	.....	.....	40	12
Summit.....	13	.....	13	17	23	.....	3	100	55	32	.....	.....	.....	.....	.....	.....	10	.....	.....	.....	.....	17	19	1	.....	.....	.....	.....	7	12
Trumbull.....	18	10	6	7	16	.....	3	223	86	96	3	.....	.....	.....	.....	.....	15	.....	.....	.....	.....	15	19	2	.....	.....	.....	.....	49	11
Tuscarawas.....	13	.....	20	9	27	.....	14	118	132	110	.....	.....	.....	.....	.....	.....	11	.....	.....	.....	.....	11	11	4	.....	.....	.....	.....	42	15
Wayne.....	6	.....	3	2	10	.....	2	47	91	137	22	.....	.....	.....	.....	.....	18	.....	.....	.....	.....	18	7	1	.....	.....	.....	.....	39	8
Average per cent. Totals.....	269	28	186	186	340	66	194	2,472	1,926	4,194	11	1	1	1	.....	.....	15	14	1	.....	.....	14	1	2	.....	.....	.....	.....	43	10

STATE AVERAGES AND TOTALS.

Averages.....	718	64	751	952	1,335	249	784	7,433	11,627	14,921	16	2	2	17	7	2	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													</
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NORTHEAST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF WHEAT AND DISTRIBUTION OF LIVE STOCK, MARCH 1, 1913.

Counties.	Per Cent. of Different Breeds of Swine.										Per Cent. of Different Breeds of Sheep.										Wheat Condition at Present.	
	Berkshires.	Poland Chinas.	Chester Whites.	Duroc Jerseys.	Yorkshires.	Hampshires.	Tamworths.	Unknown.	Merinos.	French Merinos.	Cotswolds.	Oxford Downs.	Shropshire Downs.	Hampshire Downs.	South Downs.	Lincolns.	Dorsets.	Cheviots.	Mixed Bloods.	Grades.		
Ashland	12	25	15	28	1	1	1	17	—	31	1	1	15	5	—	—	1	—	—	19	27	90
Ashabula	15	11	24	8	7	—	—	28	—	26	6	2	24	—	—	—	—	2	—	26	30	82
Carroll	16	30	22	6	2	—	—	22	5	23	2	—	10	—	—	—	—	—	—	28	32	76
Columbiana	16	21	24	11	1	—	—	27	2	13	3	2	5	—	—	—	—	—	—	25	24	88
Coshocton	21	32	23	10	—	—	—	14	4	25	4	1	10	—	—	1	—	—	—	25	27	82
Cuyahoga	5	18	32	3	1	—	—	38	—	27	—	—	26	—	—	—	—	—	—	32	27	81
Erie	17	23	9	17	2	1	1	30	3	23	4	1	16	3	—	—	—	—	—	34	17	85
Geauga	13	5	26	7	4	3	3	39	—	23	2	—	18	—	—	—	—	—	—	15	58	87
Harrison	8	46	29	8	—	—	—	9	2	58	9	4	2	—	—	—	—	—	—	9	29	86
Holmes	24	19	23	23	1	—	—	13	3	17	9	—	25	1	—	1	—	—	—	25	10	100
Huron	7	31	20	21	2	—	—	19	3	21	8	2	4	—	—	—	—	—	—	29	39	86
Jefferson	14	36	17	15	1	—	—	17	2	47	3	1	8	—	—	—	3	—	—	8	30	84
Knox	22	15	21	21	—	—	—	27	3	22	—	—	12	—	—	2	—	—	—	12	49	92
Lake	24	3	32	6	1	—	—	34	—	3	2	—	30	2	—	2	—	—	—	12	39	89
Lorain	18	15	17	11	2	2	—	37	—	11	5	5	10	—	—	1	—	—	—	36	32	86
Mahoning	34	19	21	5	2	1	2	16	1	14	7	2	11	1	—	—	1	—	—	36	23	79
Medina	20	15	24	11	5	1	—	24	3	8	1	8	17	1	2	—	—	—	—	23	37	85
Portage	22	11	28	6	1	1	—	31	—	10	1	2	10	3	—	—	—	—	—	27	47	81
Richland	8	19	27	21	1	4	—	30	—	19	4	5	16	—	—	—	—	—	—	20	34	87
Stark	19	20	27	4	2	4	—	24	—	21	2	5	11	1	—	—	—	—	—	33	26	81
Summit	15	11	30	8	4	—	—	32	5	10	2	—	18	—	—	—	—	—	—	35	30	91
Trumbull	23	16	19	5	1	—	—	35	1	6	1	1	11	—	—	—	—	—	—	37	40	85
Tuscarawas	12	26	26	3	—	—	—	33	2	18	6	2	11	—	—	—	1	—	—	37	40	85
Wayne	19	24	16	15	—	3	—	23	3	14	—	2	18	—	—	3	2	—	22	27	93	
Average per cent.	16	21	22	11	2	1	1	26	2	18	2	2	14	1	2	1	1	—	—	25	32	87
Totals																						

STATE AVERAGES AND TOTALS.

Averages	9	27	17	19	2	1	1	24	3	17	3	2	15	1	4	1	1	—	—	26	27	87	27
Totals	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

SOUTHEAST SECTION.

OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF WHEAT AND DISTRIBUTION OF LIVE STOCK, MARCH 1, 1913.

Counties.	Number of Stallions.						No. of Pure Bred Bulls, Boars, Rams.			Per Cent. of Different Breeds of Cattle.															
	No. of Townships Reported.						No. of Pure Bred Bulls, Boars, Rams.																		
	Thoroughbred Runners.	Trotting Stock.	Foreign Bred.	American Bred.	Other Pure Breeds.	Unknown Breed- ing.	Bulls (All Breeds).	Boars (All Breeds).	Rams (All Breeds).	Shorthorns.	Aberdeen-Angus.	Herefords.	Polled Durhams.	Galloways.	Jerseys.	Holsteins.	Red Polls.	Guernseys.	Ayrshires.	Devons.	Brown Swiss.	Other Pure Breeds.	Grades.	Natives.	
Athens.....	8	5	2	5	1	9	66	34	231	24	1	4	3	—	—	3	—	1	—	—	—	—	1	35	9
Belmont.....	17	4	3	39	6	23	108	87	349	16	1	2	2	—	—	4	—	1	—	—	—	—	—	30	16
Fairfield.....	12	6	19	21	6	5	32	50	32	10	4	4	2	—	—	6	—	—	—	—	—	—	—	26	35
Gallia.....	7	5	13	3	—	18	53	53	51	8	1	15	—	—	—	5	—	—	—	—	—	—	—	19	3
Guernsey.....	13	3	11	18	2	2	75	66	259	26	3	12	2	—	—	2	—	—	—	—	—	—	—	34	5
Hocking.....	9	1	4	3	—	4	43	33	42	21	8	5	2	—	—	6	—	—	—	—	—	—	—	27	14
Jackson.....	7	3	4	3	—	2	21	25	39	17	—	2	4	—	—	5	—	—	—	—	—	—	—	20	16
Lawrence.....	6	3	7	2	10	18	34	32	15	—	—	3	—	—	—	6	—	—	—	—	—	—	—	14	7
Licking.....	22	33	20	33	12	19	157	223	611	19	3	1	2	—	—	5	—	1	—	—	—	—	—	23	47
Meigs.....	10	3	8	12	1	12	48	50	280	23	3	10	5	—	—	5	—	1	—	—	—	—	—	32	5
Monroe.....	13	3	7	12	—	5	82	46	183	9	3	6	5	—	—	2	—	—	—	—	—	—	—	41	3
Morgan.....	15	2	4	17	—	12	112	65	302	16	1	8	—	—	—	5	—	—	—	—	—	—	—	25	22
Muskingum.....	17	1	10	14	2	5	191	105	372	22	3	7	2	—	—	1	—	—	—	—	—	—	—	37	19
Noble.....	12	5	8	12	3	4	77	59	543	20	11	12	3	—	—	1	—	—	—	—	—	—	—	41	6
Perry.....	9	4	9	12	3	5	82	65	137	33	2	2	1	—	—	1	—	—	—	—	—	—	—	23	15
Vinton.....	7	1	—	8	—	5	29	28	100	29	—	2	—	—	—	2	—	—	—	—	—	—	—	35	10
Washington.....	13	1	2	9	6	—	68	55	229	17	—	9	1	—	—	2	—	—	—	—	—	—	—	41	4
Average per cent.....	8	101	127	210	46	138	1,278	1,076	3,775	19	3	5	2	—	—	3	—	—	—	—	—	—	—	37	20
Totals.....	194	8	127	210	46	138	1,278	1,076	3,775	19	3	5	2	—	—	3	—	—	—	—	—	—	—	31	15

STATE AVERAGES AND TOTALS.

Averages.....	718	64	751	952	240	734	7,433	11,627	14,321	16	2	2	2	—	—	—	—	—	—	—	—	—	—	1	37
Totals.....	718	64	751	952	240	734	7,433	11,627	14,321	16	2	2	2	—	—	—	—	—	—	—	—	—	—	1	37

SOUTHEAST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF WHEAT AND DISTRIBUTION OF LIVE STOCK, MARCH 1, 1913.

Counties.	Per Cent. of Different Breeds of Swine.								Per Cent. of Different Breeds of Sheep.												
	Berkshires.	Poland Chinas.	Chester Whites.	Duroc Jerseys.	Yorkshires.	Hampshires.	Tamworths.	Unknown.	Merinos.	French Merinos.	Colswolds.	Oxford Downs.	Shropshire Downs.	Hampshire Downs.	South Downs.	Lincolns.	Dorsets.	Cheviots.	Mixed Breeds.	Grades.	Wheat Condition at Present.
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Athens.....	4	24	31	9	2	5	7	22	3	45	7	.....	3	.....	1	1	.....	.....	24	24	83
Belmont.....	11	32	29	7	2	1	1	18	15	34	4	5	2	.....	1	1	.....	.....	19	21	79
Fairfield.....	19	33	13	23	1	1	1	9	.....	23	4	.....	14	2	3	.....	.....	.....	11	31	93
Gallia.....	5	31	26	6	4	.....	.....	28	.....	13	1	.....	14	.....	3	.....	.....	.....	20	49	79
Guernsey.....	8	48	24	8	.....	.....	.....	12	9	37	.....	.....	2	.....	3	.....	1	.....	29	19	81
Hocking.....	5	31	27	20	1	.....	1	15	2	28	.....	.....	2	.....	3	.....	.....	.....	47	15	80
Jackson.....	1	19	13	38	1	.....	.....	29	2	16	.....	.....	18	4	6	.....	.....	.....	39	13	68
Lawrence.....	15	25	19	15	7	.....	.....	33	1	7	.....	1	4	6	13	1	.....	.....	32	26	72
Licking.....	14	39	17	15	1	.....	.....	15	3	37	2	1	13	1	4	.....	.....	.....	20	19	91
Meigs.....	11	21	35	8	3	.....	.....	22	3	22	2	1	10	2	6	1	.....	.....	19	27	83
Monroe.....	4	34	21	7	.....	.....	.....	34	4	37	1	.....	3	.....	1	.....	.....	.....	27	27	83
Morgan.....	6	31	28	7	.....	.....	.....	32	3	26	.....	.....	1	1	1	.....	1	.....	31	39	86
Muskingum.....	20	32	16	8	.....	.....	.....	24	3	48	.....	.....	5	.....	1	.....	.....	.....	20	29	82
Noble.....	7	37	21	8	2	.....	.....	25	3	36	.....	.....	1	.....	2	.....	.....	.....	31	27	81
Perry.....	20	34	10	12	.....	.....	.....	24	2	31	12	.....	5	.....	.....	.....	.....	.....	29	19	90
Vinton.....	5	34	26	8	.....	.....	.....	26	.....	37	1	.....	1	.....	.....	.....	.....	.....	21	35	68
Washington.....	5	28	33	1	.....	.....	4	29	.....	35	.....	.....	1	.....	.....	.....	.....	.....	14	50	77
Average per cent.....	9	31	23	11	1	1	1	23	3	30	3	1	6	1	3	.....	.....	.....	25	28	81
Totals.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

STATE AVERAGES AND TOTALS.

Averages.....	9	27	17	19	2	1	1	24	3	17	3	2	15	1	4	1	1	.....	26	27	87
Totals.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NORTHWEST SECTION.
OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF WHEAT AND DISTRIBUTION OF LIVE STOCK, MARCH 1, 1913.

Counties.	Number of Stallions.					No. of Pure Bred Bulls, Boars, Rams.				Per Cent. of Different Breeds of Cattle.																	
	Thoroughbred Runners.	Trotting Stock.	Foreign Bred	American Bred	Other Pure Breeds.	Unknown Breeding.	Bulls (All Breeds).	Boars (All Breeds).	Rams (All Breeds).	Shorthorns.	Aberdeen-Angus.	Herefords.	Polled Durham.	Galloways.	Jerseys.	Holsteins.	Red Polls.	Guernseys.	Ayrshires.	Devons.	Brown Swiss.	Other Pure Breeds.	Grades.	Natives.			
No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%			
Allen.....	8	6	11	24	2	3	111	382	252	20	1	3	9	1	13	9	2	2	2	---	---	---	1	43	4		
Anguize.....	10	4	13	20	3	10	70	152	76	11	2	1	2	---	16	3	1	2	2	---	---	---	2	50	9		
Champaign.....	12	22	37	47	6	21	140	348	373	13	3	1	2	---	27	3	1	2	2	1	---	---	3	37	14		
Crawford.....	14	10	19	23	2	8	112	272	307	25	1	1	6	---	23	6	4	---	---	---	---	---	1	30	9		
Darke.....	10	2	14	11	26	1	112	300	102	16	1	1	1	---	23	3	4	---	---	---	---	---	---	3	30	3	
Defiance.....	8	2	12	17	2	12	83	125	206	13	1	1	1	---	8	3	4	---	---	---	---	---	---	5	35	5	
Delaware.....	13	23	24	26	4	4	121	220	294	15	1	1	4	---	27	3	2	1	---	---	---	---	---	1	17	1	
Fulton.....	6	4	12	14	1	3	84	86	67	3	1	1	1	---	26	3	1	---	---	---	---	---	---	4	49	18	
Hancock.....	15	2	4	10	15	12	128	311	363	11	1	1	1	---	10	5	1	---	---	---	---	---	---	1	24	21	
Hardin.....	8	4	18	27	1	6	64	192	174	17	5	1	1	---	4	6	2	---	---	---	---	---	---	4	32	32	
Henry.....	11	14	12	11	3	1	68	162	260	15	2	4	6	---	14	5	4	---	---	---	---	---	---	---	36	11	
Logan.....	9	14	9	12	1	31	32	102	45	2	2	2	3	---	12	5	4	---	---	---	---	---	---	4	43	20	
Lucas.....	10	6	18	21	1	2	108	412	475	28	6	7	7	---	13	6	4	---	---	---	---	---	---	---	19	6	
Marion.....	8	1	12	15	10	3	57	98	64	13	1	4	4	---	14	1	4	---	---	---	---	---	---	4	51	11	
Mercer.....	14	2	16	23	23	6	108	112	472	16	1	2	1	---	15	4	1	---	---	---	---	---	---	---	51	5	
Morrow.....	5	1	1	6	---	18	27	11	11	11	1	1	4	---	15	4	6	---	---	---	---	---	---	---	33	48	
Ottawa.....	11	6	13	24	1	10	49	110	231	29	7	1	4	---	12	4	1	---	---	---	---	---	---	3	27	31	
Paulding.....	11	14	26	29	11	13	115	421	231	29	7	1	10	---	15	7	1	---	---	---	---	---	---	3	14	11	
Putnam.....	7	6	11	11	1	5	49	94	63	12	1	4	3	---	17	3	1	---	---	---	---	---	---	1	40	16	
Sandusky.....	8	1	10	12	2	9	59	190	149	25	1	1	6	---	16	10	4	---	---	---	---	---	---	2	37	17	
Shelby.....	7	6	16	10	1	4	47	130	235	21	1	1	2	---	13	3	2	---	---	---	---	---	---	3	14	15	
Union.....	9	30	24	21	8	8	70	240	235	25	2	1	3	---	18	3	4	---	---	---	---	---	---	2	37	13	
Van Wert.....	8	1	31	22	2	6	64	214	130	21	2	3	3	---	12	3	1	---	---	---	---	---	---	4	47	22	
Williams.....	10	5	4	27	2	2	62	256	270	10	1	1	1	---	8	3	1	---	---	---	---	---	---	2	34	29	
Wood.....	12	3	13	15	5	14	81	207	132	10	1	2	3	---	10	6	3	---	---	---	---	---	---	3	31	11	
Wyandot.....	8	2	17	5	1	3	79	133	182	25	1	3	2	---	12	7	2	---	---	---	---	---	---	---	2	31	11
Average per cent.	16	234	433	515	70	212	2,128	5,271	5,056	15	2	3	3	---	13	6	2	---	---	---	---	---	---	1	38	15	
Totals.....	260	16	234	515	70	212	2,128	5,271	5,056	15	2	3	3	---	13	6	2	---	---	---	---	---	---	1	38	15	
STATE AVERAGES AND TOTALS.																											
Averages.....	718	64	751	952	1,335	249	734	7,433	11,627	14,821	16	2	2	---	17	7	2	---	---	---	---	---	---	1	37	13	
Totals.....	718	64	751	952	1,335	249	734	7,433	11,627	14,821	16	2	2	---	17	7	2	---	---	---	---	---	---	1	37	13	

STATE AVERAGES AND TOTALS.

Averages.....	718	64	751	952	249	734	7,433	11,627	14,821	16	2	2	2	---	17	7	2	---	---	---	---	---	1	37	13
Totals.....	718	64	751	952	249	734	7,433	11,627	14,821	16	2	2	2	---	17	7	2	---	---	---	---	---	1	37	13

NORTHWEST SECTION—Concluded.
OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF WHEAT AND DISTRIBUTION OF LIVE STOCK, MARCH 1, 1913.

Counties.	Per Cent. of Different Breeds of Swine.										Per Cent. of Different Breeds of Sheep.										Wheat Condition at Present.
	Berkshires.	Poland Chinas.	Chester Whites.	Duroc Jerseys.	Yorksires.	Hampshires.	Tamworths.	Unknown.	Merinos.	French Merinos.	Cotswolds.	Oxford Down.	Shropshire Down.	Hampshire Down.	South Downs.	Lincolns.	Dorsets.	Cherlocks.	Mixed Breeds.	Grades.	
Allen.....	8	28	16	30	1	1	1	17	2	5	3	1	21	1	1	3	1	1	13	49	89
Auglaize.....	5	19	9	31	1	2	1	33	1	11	1	1	24	1	1	1	1	1	22	38	97
Champaign.....	8	30	15	22	1	1	1	21	4	13	3	3	12	1	5	1	1	1	42	16	89
Crawford.....	7	23	14	31	2	1	1	22	4	13	3	1	12	1	1	1	1	1	24	27	89
Darke.....	4	25	19	29	2	1	1	35	3	9	2	7	22	3	6	7	1	1	24	31	92
Defiance.....	8	31	11	15	2	4	1	35	3	9	2	7	18	1	4	1	1	1	19	38	93
Delaware.....	9	29	14	22	2	2	1	32	2	16	1	2	16	1	1	1	1	1	26	23	88
Fulton.....	6	24	13	25	2	2	1	31	2	8	1	1	21	1	1	1	1	1	11	41	94
Hancock.....	5	32	6	29	1	1	1	26	8	10	4	6	16	1	1	1	2	1	38	27	92
Hardin.....	6	21	12	13	3	3	1	42	4	8	4	3	25	8	2	4	2	1	25	25	81
Henry.....	8	31	17	25	1	2	1	19	4	22	2	3	16	2	2	1	1	1	7	44	84
Logan.....	9	23	14	31	2	1	1	21	4	12	2	3	16	2	2	4	1	1	23	24	84
Lucas.....	9	27	11	43	3	1	1	7	6	12	5	1	36	3	13	1	1	1	22	25	100
Marion.....	11	22	28	25	3	1	1	21	2	11	2	1	20	3	2	4	1	1	36	11	89
Mercer.....	11	22	28	25	3	1	1	28	2	12	6	1	43	1	1	1	1	1	36	12	92
Morrow.....	9	30	22	11	1	1	1	11	2	29	3	1	8	1	3	1	1	1	12	40	92
Ottawa.....	3	15	13	6	1	1	1	62	1	6	2	1	7	1	13	2	1	1	52	20	97
Paulding.....	9	37	11	25	1	1	1	17	1	10	6	1	24	1	4	3	1	1	34	28	85
Putnam.....	9	30	15	31	3	1	1	12	4	10	6	6	27	4	10	3	1	1	21	12	89
Sandusky.....	6	29	13	27	1	1	1	24	2	9	9	1	29	4	4	1	1	1	17	27	84
Seneca.....	7	36	21	17	1	1	1	17	3	15	4	2	24	1	1	1	2	1	29	21	85
Shelby.....	4	22	17	33	3	3	1	21	2	18	1	2	38	1	4	1	1	1	17	26	94
Union.....	6	27	12	37	1	1	1	15	9	4	1	9	20	1	1	1	1	1	24	25	93
Van Wert.....	9	19	10	34	2	2	1	26	1	5	4	4	25	2	6	2	1	1	18	32	80
Williams.....	5	28	17	25	2	2	1	20	1	11	1	4	19	1	1	1	1	1	24	43	96
Wood.....	11	26	11	20	6	1	1	26	1	11	4	1	23	2	3	2	1	1	21	35	94
Wyandot.....	10	35	18	22	1	1	1	15	3	16	2	1	12	1	2	3	2	1	43	16	87
Average per cent. Totals.....	7	27	14	26	2	1	1	23	2	11	3	2	22	1	3	2	1	1	25	28	90
STATE AVERAGES AND TOTALS.																					
Averages.....	9	27	17	19	2	1	1	24	3	17	3	2	15	1	4	1	1	1	26	27	87
Totals.....																					

SOUTHWEST SECTION.
OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF WHEAT AND DISTRIBUTION OF LIVE STOCK, MARCH 1, 1913.

Counties.	Number of Stallions.				No. of Pure Bred Bulls, Boars, Rams.			Per Cent. of Different Breeds of Cattle.																		
	Thoroughbred Runners.		Trotting Stock.	Foreign Bred.	American Bred.	Other Pure Breeds.	Unknown Breed-Ing.	Bulls (All Breeds).	Boars (All Breeds).	Rams (All Breeds).	Shorthorns.	Aberdeen-Angus.	Herefords.	Polled Durhams.	Galloways.	Jerseys.	Holsteins.	Red Polls.	Guernseys.	Ayrshires.	Devons.	Brown Swiss.	Other Pure Breeds.	Grades.	Natives.	
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Adams.....	11	1	8	12	1	7	63	64	50	26	6	3	3	2	1	18	6	4	2	—	—	—	1	20	17	
Brown.....	14	1	9	14	6	11	102	154	67	18	3	1	1	4	—	35	3	—	—	—	—	—	4	28	17	
Butler.....	6	2	4	17	2	11	47	170	63	13	2	3	3	1	—	21	6	1	—	—	—	—	39	11	—	
Clark.....	7	—	17	9	—	12	36	85	60	11	—	—	—	—	—	33	3	2	—	—	—	—	—	44	—	
Clermont.....	11	—	17	15	—	15	69	115	38	16	1	—	—	—	—	30	9	1	—	—	—	—	33	18	—	
Clinton.....	10	1	24	10	3	11	90	100	84	17	—	—	—	—	—	24	4	1	—	—	—	—	—	8	—	
Fayette.....	16	—	12	15	1	5	61	220	57	41	3	5	2	2	2	19	1	—	—	—	—	—	4	29	—	
Franklin.....	17	1	11	13	1	17	217	343	241	9	1	1	1	1	—	21	14	1	5	—	—	—	—	—	—	
Greene.....	6	3	17	12	20	4	74	174	203	14	5	—	—	—	—	15	1	—	—	—	—	—	39	4	—	
Hamilton.....	8	8	5	4	11	4	39	54	37	6	—	—	—	—	—	23	5	1	—	—	—	—	2	50	—	
Highland.....	13	—	21	28	15	3	17	120	284	243	21	5	1	2	1	15	1	—	—	—	—	—	50	12	—	
Madison.....	17	—	10	12	27	2	10	92	232	161	15	—	2	2	—	13	1	3	2	—	—	—	29	14	—	
Miami.....	7	—	7	6	11	—	33	56	18	7	—	—	—	—	—	13	5	2	4	1	—	—	48	13	—	
Montgomery.....	9	—	6	15	2	12	68	216	42	9	1	1	1	5	—	15	2	5	2	—	—	—	3	48	—	
Pickaway.....	9	—	17	18	15	4	107	185	59	34	1	1	1	3	—	20	3	3	2	—	—	—	2	38	—	
Pike.....	9	—	12	4	6	3	21	42	60	10	4	—	—	—	—	16	2	3	5	—	—	—	52	16	—	
Preble.....	9	—	11	11	1	5	85	210	39	14	2	1	1	5	—	15	2	4	3	—	—	—	38	9	—	
Ross.....	12	3	20	13	29	1	30	115	391	216	25	3	3	3	—	15	1	4	4	—	—	—	2	23	—	
Scioto.....	13	—	2	1	7	7	61	85	19	16	2	3	3	1	—	21	7	3	1	—	—	—	21	31	—	
Warren.....	7	—	17	3	13	6	55	84	39	17	2	—	—	—	—	25	7	3	1	—	—	—	3	30	—	
Average per cent. Totals.....	195	12	230	206	270	67	190	1,555	3,354	1,796	17	2	1	2	—	21	4	2	1	—	—	—	2	37	11	—

STATE AVERAGES AND TOTALS.

Averages.....	718	64	751	952	1,335	249	734	7,433	11,627	14,821	16	2	2	—	17	7	2	1	—	—	—	—	1
Totals.....	718	64	751	952	1,335	249	734	7,433	11,627	14,821	16	2	2	—	17	7	2	1	—	—	—	—	37

SOUTHWEST SECTION—Concluded.
OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF WHEAT AND DISTRIBUTION OF LIVE STOCK, MARCH 1, 1913.

Counties.	Per Cent. of Different Breeds of Swine.							Per Cent. of Different Breeds of Sheep.											Wheat Condition at Present.		
	Berkshires.	Poland Chinas.	Chester Whites.	Duroc Jerseys.	Yorkshires.	Hampshires.	Tamworths.	Unknown.	Merinos.	French Merinos.	Cotswolds.	Oxford Downs.	Shropshire Downs.	Hampshire Downs.	South Downs.	Lincolns.	Dorsets.	Cheviots.		Mixed Bloods.	Grades.
Adams.....	5	46	15	21				13	2	23	2	3	14	1	9				35	11	80
Brown.....	3	39	11	32		1		14	4	19	3	2	15	2	10				24	21	81
Butler.....	5	25	9	43				17	3	3	4	3	14		9		1		44	22	96
Clark.....		27	11	39	1	2		20	3	20	2		11		6				39	19	94
Clermont.....	2	27	17	26				28	2	19	9		9		27				13	20	100
Clinton.....	10	37	9	34	1	2		10	19	18	1		14		3		4		31	9	96
Fayette.....	9	23	4	41	1			20	1	8			17						27	27	93
Franklin.....	13	24	17	19	3	2		22	2	16	4		12						16	40	91
Greene.....	4	18	6	18	1		1	52	4	16	2	3	7	7	3		1	1	30	28	91
Hamilton.....	10	22	16	28				24		9		6	37	3			2		14	29	99
Highland.....	7	28	8	30	1	1		26		7	5	2	15	3		1			17	19	90
Madison.....	2	29	4	41	1		1	40	3	17			30		19	2			35	13	94
Miami.....	2	20	15	19	3			22		9	6	2	20		11		3		31	9	83
Montgomery.....	6	30	17	28	1		1	19	1	12	4	5	15		8				19	32	91
Pickaway.....	2	36	12	21	1	1		27	1	12	2		25	3			4		32	25	81
Pike.....	7	32	10	34				17		15			17		11				33	12	94
Preble.....	2	13	11	49		1		24	2	26	7	10	28	1	3		1		33	12	94
Ross.....	6	34	9	36	1	1		14	5				5	2	24	1			25	14	85
Scioto.....	12	27	6	17			2	35	5	4	14		6	1					31	21	90
Warren.....	1	39	11	28				21	8		3	6	6		12	3	1	1	11	44	100
Average per cent. Totals.....	5	29	11	30	1	1		23	3	11	4	3	17	2	9	1	1		27	22	91

STATE AVERAGES AND TOTALS.																					
Averages.....	9	27	17	19	2	1	1	24	3	17	3	2	15	1	4	1	1		26	27	87
Totals.....																					

Official Report

OF THE

Ohio Department of Agriculture

ON THE

Condition of Crops and Area of Oats, May 1, 1913

The following report, reference to wheat, fruit and other crops, is compiled from returns received from official correspondents of this Department:

WHEAT—Condition compared with an average.....	93 per cent.
OATS—Area for 1912 as returned by township assessors.....	1,865,449 acres.
“ —Area sown this year compared with 1912.....	87 per cent.
“ —Estimated area for the harvest of 1913.....	1,615,151 acres.
SPRING BARLEY—Area sown compared with last year.....	91 per cent.
WINTER BARLEY—Condition compared with an average.....	89 per cent.
BARLEY—Total area:	
“ —Sown last fall.....	24 per cent.
“ —Sown this spring.....	76 per cent.
RYE—Condition compared with an average.....	93 per cent.
CLOVER—Average date of seeding.....	March 28.
“ —Acreage sown compared with last year.....	95 per cent.
FRUIT—Prospect compared with normal yield.....	90 per cent.
BERRIES—Prospect compared with normal yield.....	93 per cent.
LIVE STOCK—Losses during winter and spring:	
Horses.....	2 per cent.
Cattle.....	1 per cent.
Sheep.....	3 per cent.
Hogs.....	3 per cent.
Loss of live stock by recent floods.....	\$174,403.

AVERAGE PRICES.

WHEAT	\$1.01 per bushel.
CORN .....	.56 per bushel.
BARLEY .....	.60 per bushel.
OATS .....	.37 per bushel.
RYE .....	.72 per bushel.
POTATOES .....	.57 per bushel.
HAY	10.40 per ton.
ALFALFA	13.45 per ton.

Flattering indeed, is Ohio's present wheat prospect. The growing condition of the plant is estimated at 93 per cent. compared with the

average. On corresponding date one year ago its condition was estimated at but 44 per cent. 1912 wheat harvest was a failure, resulting in a production of approximately only ten million bushels. Should the present plant suffer no material damage between now and harvest, the total production should double, if not treble, that of last year. The wheat suffered but small damage by recent floods. While here and there, in the flooded districts, a field was ruined, the damage was not serious enough to affect the general average condition for the state as a whole.

The area seeded to oats is but 87 per cent. in comparison with 1912 average. Last year an unusually large area was sown, owing to failure of wheat. Last spring practically one-half of the wheat area was abandoned and the greater part of this ground was put to oats. The present acreage is well up to an average. Seeding generally was late, due to wet weather.

In some sections corn plowing is in progress. Rain is needed for this work.

While fruit bloom of all kinds has been unusually abundant this spring, the general crop will probably not be as heavy as the bloom would indicate. A close examination of buds shows considerable injury. Cherries seem to have been hurt most, suffering principally from winter injury. The freeze of April 20 was fatal to some varieties of apple and a large percentage of peach buds in lower elevations of southern Ohio. Farm apple orchards, which show a heavy bloom the state over, will bring this crop above the preceding one. Notwithstanding the injury noted, present indications are for a larger fruit crop than that of 1912.

The report shows that Ohio farmers suffered a loss of \$174,400 to live stock by recent high waters.

NORTHEAST SECTION.
OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON THE ACREAGE AND CONDITION OF WHEAT AND OTHER CROPS
MAY 1, 1913, AND LIVE STOCK LOSSES DURING WINTER AND SPRING.

County.	Reports Received	Wheat.			Oats.			Spring Barley.		Winter Barley.	Barley.			Rye.		Clover.	
		Condition Compared With Standard Average.	Damage by Hessian Fly.	Damages by Other Insects.	Area for 1912 as Returned by Township Assessment.	Acres.	Per Cent.	Area Sown Compared With Last Year.	Per Cent.	Estimated Area for Harvest of 1913.	Area Sown Compared With Last Year.	Per Cent.	Condition Compared With Standard Average.	Per Cent.	Condition Compared With Standard Average.	Average Date of Seeding After March 1.	Per Cent.
	No.	Per Cent.	Per Cent.	Per Cent.							Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Days.	Per Cent.
Ashland	10	95			21,732	93		20,200	97	50	42	58		90		29	94
Ashtabula	16	99			28,156	96		27,032	100					92		33	96
Carroll	9	94	1		14,162	98		13,876	82					94		20	103
Columbiana	12	93	1		20,797	102		21,012						100		23	93
Coshocton	17	98	1		10,353	88		9,103	100	100	50	50		91		25	99
Cuyahoga	13	99	2		12,372	89		11,011	75					97		31	96
Erie	16	100	2		16,238	86		16,585	90	90	20	80		92		33	103
Geauga	11	100			16,318	89		16,154	85	95	70	30		94		40	95
Harrison	13	92			8,025	101		8,107	100					92		27	99
Holmes	6	100	2		18,040	92		16,966	100					100		26	101
Huron	12	88	1		33,056	93		30,742	96	85	13	87		88		29	98
Jefferson	13	86	3		10,953	97		10,684	105		90	10		78		24	99
Knox	20	94			9,508	86		7,776						96		25	99
Lake	6	94			7,769	96		7,468	100	100				100		26	91
Lorain	13	95	1		30,032	94		28,230	93		23	77		94		31	110
Madison	10	90	3		23,499	98		23,029						90		30	98
Medina	10	95	1		27,602	89		22,476						98		33	90
Portage	15	99			23,812	101		24,060						100		31	100
Richland	12	86	2		28,290	91		25,784	100	100	50	50		100		32	100
Stark	15	92	1		32,142	96		30,866						93		32	95
Summit	14	94	1		20,332	97		19,722	103	100				94		32	97
Trumbull	15	89	2		24,104	108		24,827						75		24	96
Tuscarawas	16	95	1		19,344	97		18,463						93		19	102
Wayne	13	99	1		37,717	93		35,077	88	90	30	70		98		28	101
Averages		94	1		497,286	94		468,753	93	91	35	65		93		March	98
Totals	266																
Minimum																	
Maximum																	

NORTHEAST SECTION—Concluded.
OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON THE ACREAGE AND CONDITION OF WHEAT AND OTHER CROPS,
MAY 1, 1913, AND LIVE STOCK LOSSES DURING WINTER AND SPRING.

Counties.	Fruit.		Berries.		Live Stock Losses During Winter and Spring.				Price per Bushel.							Price per Ton.	
	Prospect Compared With Normal Yield.	Per Cent.	Prospect Compared With Normal Yield.	Per Cent.	Horses.	Cattle.	Sheep.	Hogs.	Loss to Live Stock by Flood.	Wheat.	Corn.	Barley.	Oats.	Rye.	Potatoes.	Hay.	Alfalfa.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Dollars.	Per Bus.	Per Bus.	Per Bus.	Per Bus.	Per Bus.	Per Bus.	Per Ton.	Per Ton.
Ashtabula.....	88	95	2	2	2	2	4	3	1,100	\$1 01	\$0 56	\$0 53	\$0 32	\$0 70	\$0 36	\$8 89	
Ashtabula.....	99	99	2	2	2	2	1	1	400	1 07	64	60	40	71	43	9 14	
Carrick.....	83	89	4	4	3	3	1	0	100	1 01	55	60	41	79	50	9 44	
Columbiana.....	92	100	1	1	1	1	1	0	640	1 02	61	70	40	85	57	11 23	\$22 50
Coshocton.....	84	84	4	4	4	4	2	2	640	1 03	63	70	39	79	53	9 50	15 50
Cuyahoga.....	98	95	1	1	1	1	2	2	100	1 08	59	70	32	71	39	10 75	18 00
Erie.....	98	97	1	1	1	1	2	1	100	1 03	53	70	42	73	43	10 00	22 00
Geauga.....	100	103	1	1	1	1	1	0	300	1 05	55	70	35	92	70	10 40	10 00
Harrison.....	70	96	1	1	1	1	3	2	750	1 04	60	65	34	78	43	9 60	
Holmes.....	92	97	1	1	1	1	1	1	150	1 04	60	65	32	78	43	10 20	
Huron.....	99	96	2	2	1	1	3	1	500	1 03	54	70	47	88	70	13 10	16 35
Jefferson.....	95	96	1	1	1	1	3	3	500	1 03	53	70	38	80	51	11 60	14 00
Knox.....	96	93	2	2	1	1	0	1	600	1 00	56	70	40	78	47	13 65	17 30
Lake.....	105	102	0	0	0	0	0	3	600	1 08	60	70	36	93	63	12 40	20 00
Lorain.....	91	92	2	2	2	2	3	3	600	1 06	56	70	31	95	52	10 35	10 00
Mahoning.....	92	94	2	2	2	2	2	2	600	1 06	56	70	41	95	63	12 40	20 00
Medina.....	80	80	2	2	2	2	2	0	300	1 05	50	56	37	60	39	11 00	10 00
Portage.....	95	108	1	1	0	0	2	0	300	1 03	61	56	32	71	43	10 00	10 00
Richland.....	90	93	2	2	1	1	2	4	350	1 02	57	70	36	75	58	9 86	12 00
Stark.....	90	93	1	1	1	1	1	1	350	1 02	56	70	36	75	58	12 50	15 00
Summit.....	96	90	1	1	1	1	2	2	1,200	1 06	61	45	37	74	54	11 45	13 00
Tuscarawas.....	95	93	2	2	2	2	2	2	3,500	1 06	61	45	39	75	57	10 15	13 00
Trumbull.....	85	95	1	1	1	1	2	2	8,000	1 01	59	74	39	83	51	9 00	13 00
Tuscarawas.....	85	95	2	2	2	2	3	3	1,250	1 01	59	74	39	83	51	9 00	13 00
Wayne.....	89	80	2	1	1	1	3	3	1,250	1 02	56	74	30	73	51	9 00	13 00
Averages.....		94	2	2	2	2	2	2	\$19,140	\$1 03	\$0 57	\$0 66	\$0 37	\$0 78	\$0 50	\$10 62	\$15 80
Totals.....																	
Minimum.....										\$0 96	\$0 50	\$0 45	\$0 30	\$0 60	\$0 36	\$8 80	\$10 00
Maximum.....										1 08	64	90	47	95	70	15 62	22 50

SOUTHEAST SECTION.

OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON THE ACREAGE AND CONDITION OF WHEAT AND OTHER CROPS
MAY 1, 1913, AND LIVE STOCK LOSSES DURING WINTER AND SPRING.

County.	Reports Received.	Wheat.			Oats.			Spring Barley.		Winter Barley.		Barley.		Rye.		Clover.	
		Condition Compared With Standard Average.	Damage by Hessian Fly.	Damage by Other Insects.	Area for 1912 as Returned by Township Assessors.	Acres.	Per Cent.	Acres.	Per Cent.	Condition Compared With Standard Average.	Per Cent.	Per Cent. Sown Last Fall.	Per Cent. Sown This Spring.	Condition Compared With Standard Average.	Per Cent.	Average Date of Seeding Days After March 1.	Acres Sown Compared With Last Year.
No.		Per Cent.	Per Cent.	Per Cent.	Acres.	Per Cent.	Acres.	Per Cent.	Acres.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Days.	
Athens.....	9	87	7	1	2,387	94	2,244					10	90			18	95
Belmont.....	15	80	6	3	11,704	100	11,704									18	102
Boonville.....	15	91	2	1	4,084	84	3,431									19	92
Callia.....	5	63	9		2,531	91	2,303									16	78
Guernsey.....	15	88	4	2	6,751	94	6,346					23	77			21	101
Hocking.....	5	93	4		1,787	88	1,555									25	85
Jackson.....	7	84	7	3	1,569	92	1,443									28	88
Lawrence.....	6	100			2,908	91	2,646									28	92
Licking.....	19	96	5	2	10,177	86	8,752					15	85			29	93
Meigs.....	12	87	6	1	2,376	95	2,257									22	97
Monroe.....	11	78	8	6	7,604	100	7,604									17	93
Morgan.....	14	95	3	1	2,338	95	2,221									16	94
Muskingum.....	14	99	1	2	5,550	93	5,162									28	90
Noble.....	12	83	6	1	3,963	99	3,923					55	45			28	94
Perry.....	12	100	4		2,614	90	2,353									20	94
Vinton.....	8	98	3	1	1,624	97	1,575									18	91
Washington.....	16	85	6	1	6,813	93	6,316									21	94
Averages.....		89	5	1	76,760	94	71,835					26	74			March 21	92
Totals.....	92																
Minimum.....																	
Maximum.....																	

STATE AVERAGES, TOTALS, MINIMUM AND MAXIMUM.

Averages.....	93	2	1	1,865,440	87	1,615,151	91	89	24	76	93	March 28	95
Totals.....	989												
Minimum.....													
Maximum.....													

SOUTHEAST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON THE ACREAGE AND CONDITION OF WHEAT AND OTHER CROPS
MAY 1, 1913, AND LIVE STOCK LOSSES DURING WINTER AND SPRING.

Counties.	Live Stock Losses During Winter and Spring.				Price per Bushel.						Price per Ton.															
	Berries.		Hogs.		Cattle.		Sheep.		Loss to Live Stock by Flood.		Wheat.		Corn.		Barley.		Oats.		Rye.		Potatoes.		Hay.		Alfalfa.	
	Prospect Compared With Normal Yield.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Dollars.	Per Bus.	Per Bus.	Per Bus.	Per Bus.	Per Bus.	Per Bus.	Per Bus.	Per Bus.	Per Bus.	Per Bus.	Per Bus.	Per Bus.	Per Bus.	Per Ton.	Per Ton.	Per Ton.	Per Ton.
Athens.....	72	86	1	3	5	1	1	1	1	\$1 00	\$0 65	\$0 45	\$0 90	\$0 62	\$12 00	\$13 75										
Belmont.....	88	96	1	1	1	1	1	1	1	1 01	65	45	95	71	14 80	16 00										
Boonville.....	89	89	1	1	1	1	1	\$1 300	1 01	61	40	65	57	10 40												
Calhoun.....	81	90	1	1	1	1	1	213	1 00	61		51	60	12 50												
Carroll.....	56	85	1	2	7	1	1	725	1 01	66		45	58	11 20	16 00											
Champaign.....	78	87	1	1	6	1	1	100	1 00	60		50	60	55	11 00	9 00										
Cincinnati.....	74	76	1	2	3	1	1	1	1 05	64		50	83	71	12 20											
Clermont.....	77	81	1	1	1	1	1	1	98	66		44	81	68	12 00	14 00										
Crawford.....	90	93	1	1	1	1	1	1,075	98	58		42	82	67	15 20	17 00										
Cuyahoga.....	70	83	1	1	2	1	1	1	1 01	63		42	80	67	12 00	14 50										
Deerfield.....	62	84	1	1	3	1	1	25	1 05	66		47	87	49	12 00											
Franklin.....	71	90	1	2	3	1	1	400	90	61	40	36	75	11 10	14 00											
Madison.....	47	85	1	1	1	1	1	200	1 01	61	50	88	70	10 05	17 00											
Muskingum.....	70	88	1	1	2	1	1	2,000	1 02	63		76	65	12 55	13 35											
Noble.....	80	86	1	1	1	1	1	750	99	69		46	81	73	10 60	14 00										
Perry.....	74	90	1	1	3	1	1	1	99	69		46	85	63	10 65											
Vinton.....									1 00	63		53	92	58	12 45	15 40										
Washington.....																										
Averages.....	74	87	2	1	4	2		\$6,988	\$1 01	\$0 63	\$0 58	\$0 45	\$0 85	\$0 66	\$11 73	\$14 50										
Totals.....																										
Minimum.....									\$0 88	\$0 51	\$0 40	\$0 36	\$0 51	\$0 49	\$9 20	\$9 00										
Maximum.....									1 06	69	1 00	53	1 01	76	15 00	17 00										

STATE AVERAGES, TOTALS, MINIMUM AND MAXIMUM.

Averages.....	90	93	2	1	3	3		\$1 01	\$0 56	\$0 60	\$0 37	\$0 72	\$0 57	\$10 40	\$13 45
Totals.....							\$174,403								
Minimum.....								\$0 83	\$0 47	\$0 40	\$0 30	\$0 51	\$0 33	\$7 85	\$9 00
Maximum.....								1 06	69	1 00	53	1 01	88	17 00	22 50

NORTHWEST SECTION.

OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON THE ACREAGE AND CONDITION OF WHEAT AND OTHER CROPS,
MAY 1, 1913, AND LIVE STOCK LOSSES DURING WINTER AND SPRING.

Counties.	Reports Received.	Wheat.			Oats.			Spring Barley.		Winter Barley.		Barley.		Rye.		Clover.	
		Condition Compared With Standard Average.	Damage by Hessian Fly.	Damage by Other Insects.	Area for 1912 as Returned by Township Assessors.	Acres.	Per Cent.	Area Sown Compared With Last Year.	Per Cent.	Condition Compared With Standard Average.	Per Cent.	Per Cent. Sown Last Fall.	Per Cent. Sown This Spring.	Condition Compared With Standard Average.	Per Cent.	Average Date of Seeding Days After March 1.	Acres Sown Compared With Last Year.
	No.	Per Cent.	Per Cent.	Per Cent.	Acres.	Per Cent.	Acres.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Days.	
Allen.....	13	100		1	27,426	95	26,055	98				10	90	94		36	84
Auglaize.....	9	98	1	1	36,539	81	32,027	79		80		17	83	97		38	94
Champaign.....	12	95	1	1	31,665	83	26,182	90					100	90		36	79
Crawford.....	18	92	1	1	33,736	94	31,712	83				16	84	86		33	97
Darke.....	13	100			57,669	87	50,172							91		34	95
Defiance.....	11	100		1	41,332	91	37,612	86					100	93		41	99
Delaware.....	13	93	1		14,818	90	13,336							100		29	99
Fulton.....	7	100			33,191	90	30,204	87					100	100		42	103
Hancock.....	15	91			36,490	78	28,462	94		98		7	93	88		38	90
Hardin.....	7	88	2	3	24,212	78	18,885	87		90		40	60	89		34	94
Henry.....	10	95			57,867	83	48,030	99				6	94	96		43	96
Logan.....	15	92	1	1	30,425	82	24,949	73		83		42	58	92		40	92
Lucas.....	6	98			23,452	87	20,403	105					100	100		39	105
Marion.....	12	81	3	1	33,067	81	26,784							81		42	90
Mercer.....	12	93			52,734	85	44,824	98		80		2	98	96		37	98
Morrow.....	15	94	2	2	17,878	90	16,090	90					100	100		36	94
Ottawa.....	5	100			23,748	93	22,086	95		100			100	98		50	100
Paulding.....	9	93			64,660	95	61,427	100		100		9	91	92		38	97
Putnam.....	10	97		2	43,831	88	42,971	91		100			90	92		43	93
Sandusky.....	9	85	1	1	52,065	66	34,364	79		100		20	80	94		40	90
Seneca.....	9	95	1	1	42,418	68	32,662	88		100		1	99	93		33	96
Shelby.....	14	91	2	1	43,756	90	43,756	67		80		45	55	88		37	96
Union.....	11	90	1		25,297	93	25,297							90		40	89
Van Wert.....	8	90	2	1	46,760	94	46,760	85				10	90	89		43	89
Williams.....	9	100			32,391	96	31,095	99				7	93	100		32	97
Wood.....	15	95	1	1	70,993	88	70,994	78		73		40	60	95		45	97
Wyandot.....	9	94	3	2	28,991	88	25,512	100						84		40	94
Averages.....		94	1	1		85				88		12	88	93		April 9	
Totals.....	296				1,064,163		892,051										
Minimum.....																	
Maximum.....																	

NORTHWEST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON THE ACREAGE AND CONDITION OF WHEAT AND OTHER CROPS,
MAY 1, 1913, AND LIVE STOCK LOSSES DURING WINTER AND SPRING.

Counties.	Fruit.		Berries.	Live Stock Losses During Winter and Spring.				Price per Bushel.					Price Per Ton.				
	Prospect Compared With Normal Yield.	Per Cent.	Prospect Compared With Normal Yield.	Per Cent.	Horses.	Cattle.	Sheep.	Hogs.	Loss to Live Stock by Dollars.	Wheat.	Corn.	Barley.	Oats.	Rye.	Potatoes.	Hay.	Alfalfa.
Allen.....	98		97		2	2	3	4	\$3,200	\$1 02	\$0 51	\$0 51	\$0 31	\$0 56	\$0 46	\$8 77	\$10 65
Auglaize.....	97		99		1	1	1	2	650	97	48	50	30	58	48	9 30	10 20
Champaign.....	85		84		3	3	1	6	3,100	99	50	50	32	63	53	7 90	10 10
Chawford.....	90		90		2	2	2	2	400	1 02	58	78	31	63	40	9 33	
Darke.....	92		96		2	2	2	2	1,200	98	49	40	30	57	41	11 15	13 70
Defiance.....	93		92		1	1	3	3	1,300	1 01	51	52	31	53	41	11 35	10 50
Delaware.....	95		98		1	1	1	2	3,150	1 01	58	43	35	78	63	9 80	13 50
Fulton.....	98		100		1	1	1	2	1,500	1 02	50	47	31	61	33	10 20	14 70
Hancock.....	99		99		1	1	1	2	1,000	1 04	50	43	31	59	36	8 90	14 00
Hardin.....	89		87		1	1	1	2		1 01	47		31	58	46	7 85	9 70
Henry.....	103		100		1	1	1	16		98	52	49	33	56	36	9 10	10 50
Lucas.....	95		94		1	1	1	5	900	99	52	63	30	57	54	8 25	10 15
Marion.....	111		107		1	1	1	2		1 05	55	54	33	67	39	12 40	12 50
Mercer.....	97		95		2	2	1	3	525	1 04	50		32	61	52	8 10	10 00
Morrow.....	95		95		1	1	2	3		98	50	45	31	57	46	10 00	10 65
Ottawa.....	94		90		1	1	1	1	200	1 02	54	30	35	65	52	7 95	10 00
Paulding.....	98		98		1	1	1	3	100	1 07	51	53	34	59	39	10 60	18 00
Putnam.....	91		91		1	1	2	3	750	96	51	52	31	63	49	9 55	
Sandusky.....	92		91		1	1	2	3	4,100	99	50	51	31	63	46	8 60	10 00
Seneca.....	92		96		1	1	2	3	1,800	1 02	49	63	33	63	35	9 25	10 65
Shelby.....	93		90		1	1	2	3	1,200	1 02	50	52	32	62	41	8 60	12 00
Union.....	91		97		1	1	5	7	925	1 01	52	73	32	70	66	9 65	13 00
Van Wert.....	91		90		1	1	4	6	500	98	49	46	31	56	49	9 30	11 00
Williams.....	102		100		1	1	1	2		1 01	51	50	31	57	35	9 65	11 50
Wood.....	94		97		1	1	2	4	2,500	1 02	50	52	32	63	49	10 40	14 10
Wyandot.....	104		98		2	2	4	4	1,100	1 02	49	50	31	62	37	8 00	9 50
Averages.....	95		95		2	1	3	4	\$31,300	\$1 00	\$0 51	\$0 54	\$0 32	\$0 62	\$0 45	\$8 69	\$11 62
Totals.....																	
Minimum.....										\$0 93	\$0 47	\$0 40	\$0 30	\$0 53	\$0 33	\$7 85	\$9 50
Maximum.....										1 07	58	80	35	78	66	12 40	18 00

SOUTHWEST SECTION.

OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON THE ACREAGE AND CONDITION OF WHEAT AND OTHER CROPS
MAY 1, 1913, AND LIVE STOCK LOSSES DURING WINTER AND SPRING.

Counties.	Reports Received.	Wheat.			Oats.			Spring Barley.		Winter Barley.	Barley.			Rye.		Clover.	
		Condition Compared With Standard Average.	Damage by Hessian Fly.	Damages by Other Insects.	Area for 1912 as Returned by Township Assessors.	Acres.	Per Cent.	Area Sown Compared With Last Year.	Per Cent.	Condition Compared With Standard Average.	Per Cent.	Per Cent. Sown Last Fall.	Per Cent. Sown This Spring.	Condition Compared With Standard Average.	Per Cent.	Average Date of Seeding Days After March 1.	Average Sown Compared With Last Year.
Adams	13	89	8	1	4,091	97	3,998	100	100					97	20	100	100
Brown	12	94	3	1	5,710	100	5,710	30	93					96	18	98	98
Butler	9	90	3	1	13,964	55	7,680	90	93					93	18	103	103
Clark	7	97	3	1	15,545	64	9,948	95	95			61	39	99	20	97	97
Clermont	10	100	4	1	6,898	106	7,099	95	100					98	18	112	112
Cuyahoga	10	98	4	1	10,184	73	7,325					100		93	14	88	88
Franklin	15	90	2	1	8,759	69	12,146							99	24	95	95
Greene	8	92	2	1	17,604	53	7,738	90	65			30	70	93	24	92	92
Hamilton	6	103	2	1	1,460	97	3,108							100	14	100	100
Highland	16	93	2	1	3,201	83	3,175							93	33	95	95
Madison	10	88	1	1	29,039	83	24,006							91	28	92	92
Meigs	10	92	1	1	40,803	80	32,682							93	28	96	96
Montgomery	11	90	1	1	22,807	68	15,689	67	100			60	40	97	20	100	100
Pickaway	11	94	1	1	5,468	49	3,116							92	20	99	99
Pike	10	95	0	1	5,246	57	14,044	160						96	14	96	96
Preble	8	100	2		25,682	85	2,439							99	20	99	99
Ross	12	89	1		2,856	81	2,110	80						92	16	92	92
Schoon	12	96	1		2,806	81	2,110							100	16	92	92
Warren	10	100	1	1	12,842	81	10,402							96	20	96	96
Averages—Totals	206	94	2	1	237,240	77	182,512	88	89			63	37	95	March 21	97	97
Minimum																	
Maximum																	

STATE AVERAGES, TOTALS, MINIMUM AND MAXIMUM.

Averages—Totals	989	93	2	1	1,865,449	87	1,615,151	91	89	24	76	93	March 28	95
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SOUTHWEST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON THE ACREAGE AND CONDITION OF WHEAT AND OTHER CROPS,
MAY 1, 1913, AND LIVE STOCK LOSSES DURING WINTER AND SPRING.

Counties.	Live Stock Losses During Winter and Spring.				Price per Bushel.					Price per Ton.					
	Fruit. Prospect Corn pared With Normal Yield.	Berries.		Hogs.		Loss to Live Stock by Flood.		Wheat.	Corn.	Barley.	Oats.	Rye.	Potatoes.	Hay.	Alfalfa.
		Per Cent.	Prospect Corn pared With Normal Yield.	Per Cent.	Per Cent.	Per Cent.	Dollars.								
Adams	85	90	4	1	4	3	\$4,200	\$1 00	\$0 58		\$0 45	\$0 77	\$0 75	\$11 50	\$13 00
Brown	94	95	2	2	2	2	17,000	1 02	65		45	95	71	12 70	12 00
Butler	97	94	3	1	3	3	1,000	1 03	51	\$0 88	37	95	60	12 50	14 50
Clark	92	97	3	1	3	3	500	99	53	75	33	64	77	10 43	14 00
Clermont	91	83	3	1	3	3	1,000	1 05	57	70	38	53	77	12 35	14 50
Cincinnati	93	87	1	1	1	3	1,000	1 00	57		37	78	63	10 10	14 80
Fayette	102	99	3	2	3	3	550	98	48	65	32	69	88	11 00	11 35
Franklin	93	83	2	2	2	2	3,800	98	50		35	84	80	9 65	10 70
Greene	93	94	2	1	2	2	10,400	99	47	60	32	65	61	9 40	11 85
Hamilton	103	102	4	5	3	3	7,100	1 09	61	70	38	54	71	17 00	15 00
Highland	90	95	1	2	2	2		97	60		41	73	68	10 70	17 00
Madison	97	97	2	2	2	2		99	50		32	69	68	10 50	10 20
Miami	97	88	3	3	3	3	2,800	99	47		32	61	53	10 00	11 83
Montgomery	95	94	2	2	2	2	5,700	1 02	53	60	34	65	63	12 69	13 64
Pickaway	86	94	4	4	4	4	1,000	98	50		31	70	77	12 69	13 00
Pike	80	98	3	2	3	3	12,025	1 02	53	70	41	76	59	10 78	15 00
Preble	89	93	2	3	2	2	8	1 02	53		31	62	54	11 10	11 40
Ross	83	85	3	3	3	3	10	1 00	53		44	81	75	10 65	11 80
Scioto	80	99	1	1	1	2	19,200	1 04	58		44	83	69	14 25	16 00
Warren	102	97	2	1	2	7	30,000	1 01	54		33	66	68	12 10	12 44
Averages	93	93	2	2	2	5	\$116,975	\$1 01	\$0 54	\$0 70	\$0 37	\$0 71	\$0 72	\$11 31	\$13 18
Totals								\$0 97	\$0 47	\$0 60	\$0 31	\$0 53	\$0 53	\$8 50	\$10 20
Minimum								1 09	65	88	45	95	88	17 00	17 00
Maximum															

STATE AVERAGES, TOTALS, MINIMUM AND MAXIMUM.

Averages	90	93	2	1	3	3			\$1 01	\$0 56	\$0 60	\$0 37	\$0 72	\$0 57	\$10 40	\$13 45
Totals									\$174,403							

Official Report

OF THE

Ohio Department of Agriculture

ON THE

Condition of Crops and Live Stock, July 1, 1913

The following report is compiled from returns received from the official correspondents of this Department:

WHEAT—Prospect compared with normal yield.....	94 per cent.
“ —Damaged by joint worm.....	4 per cent.
BARLEY—Prospect compared with normal yield.....	89 per cent.
RYE—Prospect compared with normal yield.....	91 per cent.
OATS—Prospect compared with normal yield.....	81 per cent.
CORN—Area in 1912.....	3,207,717 acres.
“ —Area compared with last year.....	95 per cent.
“ —Total estimated area for 1913.....	3,044,078 acres.
“ —Condition compared with an average.....	90 per cent.
“ —Damaged by cut worm.....	3 per cent.
“ —Damaged by grub worm.....	2 per cent.
CLOVER—Damaged by white grub worm.....	4 per cent.
POTATOES—Area in 1912.....	103,261 acres.
“ —Area compared with last year.....	94 per cent.
“ Estimated area for 1913.....	97,500 acres.
“ Condition compared with an average.....	86 per cent.
TOBACCO—Area compared with last year.....	84 per cent.
TIMOTHY—Prospect compared with normal yield.....	76 per cent.
PASTURES—Condition compared with an average.....	91 per cent.
HORSES—Condition compared with an average.....	97 per cent.
COLTS—Number compared with an average.....	92 per cent.
CATTLE—Condition compared with an average.....	96 per cent.
CALVES—Number compared with an average.....	92 per cent.
WOOL—Clipped compared with last year.....	87 per cent.

“Twixt optimist and pessimist
The difference is droll;
The optimist sees the doughnut,
The pessimist sees the hole.”

Optimistic reports of 928 honest, intelligent, observing farmers, reference to Ohio's present wheat prospect, indicate substantial criticism of reports issued through ignorance or for purpose of manipulating the market. Reports have been widely circulated that Ohio's wheat crop

had suffered severe damage by ravages of joint worm. The present official report shows this damage to be but 4 per cent., hence the disparaging reports must have emanated from buggy farmers or Pullman car correspondents for the benefit of others than those working for and in harmony with the farmers' best interest. Last year the damage from this source was estimated at 3 per cent., but no distress signals were in evidence at that time. Figures herein reference to wheat prospect are based upon fifteen bushels per acre being represented by 100 per cent. With the wheat harvest in full blast, indications are for a record production in many counties of the state. The prospect for the state as a whole is estimated at 94 per cent. In a limited southeast section of state the poorest prospect is reported—76 per cent. The counties comprising this section total a much smaller wheat area than counties comprising each of the other sections of the state. The northeast section shows a prospect of 92 per cent.; northwest section, 105 per cent.; southwest section, 97 per cent. Thirty-one counties show a prospect of 100 per cent. or better. Fulton county promises the banner yield per acre, present prospect estimated at 136 per cent. Ottawa county follows closely, with a prospect of 131 per cent. Other counties with flattering prospects are Lucas, 121 per cent.; Preble, 120 per cent.; Williams, 128 per cent.; Shelby, 117 per cent.; Wood, 114 per cent.; Darke, 114 per cent.; Miami, 111 per cent.; Montgomery, 111 per cent.; Delaware, 109 per cent.; Henry, 109 per cent.; Allen, 109 per cent.; Hamilton, 108 per cent. The poorest prospect in the state is that of Washington county—55 per cent. Threshing should fully refute the pessimistic claim now being circulated by others than those that till the soil.

Oats prospect shows a decline since issuance of last report. This is due principally to drouth. Rain is needed badly. Present prospect is estimated at 81 per cent.

The corn area is estimated at 3,044,078 acres. This is 5 per cent. less than the 1912 acreage, but is approximately the same as the area of 1911. The growing condition of the crop is quite satisfactory, estimated at 90 per cent. compared with an average.

The area planted to potatoes is estimated at 97,500 acres. Condition of crop, 86 per cent. compared with an average. Compared with a normal yield timothy prospect is estimated at 76 per cent.

NORTHEAST SECTION.
OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF CROPS JULY 1, 1913.

Counties.	Wheat.				Barley.				Rye.				Oats.				Corn.					
	Prospect Com- pared With		Damage by Joint Worm.	Estimated Area for the Har- vest.	Prospect Com- pared With		Prospect Com- pared With		Prospect Com- pared With		Prospect Com- pared With		Area in 1912.	Area Compared With Last Year.	Total Estimated Area for 1913.	Condition Com- pared With Average.	Damage by Cut Worm.	Damage by White Grub				
	Per Cent.	Per Cent.			Acres.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.							Per Cent.	Per Cent.	Per Cent.	
Reports Received.	No.	Per Cent.	Per Cent.	Acres.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Acres.	Per Cent.	Acres.	Per Cent.	Per Cent.	Per Cent.				
Ashland.....	8	92	1	21,035	85	96	79	118	100	100	23,990	100	23,990	90	1	4	4	4				
Ashtabula.....	14	100	3	7,186	93	93	118	104	104	104	17,163	104	17,849	93	1	1	1	1				
Carroll.....	10	81	11	13,682	93	88	70	85	100	100	13,315	100	13,315	92	10	1	1	1				
Columbiana.....	13	84	2	20,321	80	97	85	85	102	102	16,463	99	16,792	97	3	3	3	3				
Coshocton.....	15	77	7	24,743	80	89	29	29	99	99	23,526	99	23,290	91	3	3	3	3				
Cuyahoga.....	9	102	2	8,282	73	91	101	87	102	102	6,438	98	6,566	95	2	2	2	2				
Erie.....	6	95	6	13,914	125	107	87	100	98	98	17,454	98	17,105	77	6	5	5	5				
Geauga.....	10	107	2	9,665	66	97	84	84	101	101	8,718	101	8,805	85	3	3	3	3				
Harrison.....	9	83	11	23,851	92	97	87	87	101	101	10,606	99	10,712	90	2	2	2	2				
Holmes.....	7	99	9	28,906	100	76	81	81	94	94	21,543	94	21,327	87	5	4	4	4				
Huron.....	12	90	7	10,522	100	73	72	72	98	98	32,124	98	30,197	77	2	2	2	2				
Jefferson.....	13	84	6	27,116	100	73	77	77	92	92	11,027	98	10,806	89	6	6	6	6				
Knox.....	20	83	1	22,809	100	99	95	95	99	99	34,188	97	33,162	92	4	4	4	4				
Lake.....	5	99	1	2,809	75	96	97	97	103	103	7,050	99	6,980	90	1	1	1	1				
Lorain.....	16	101	3	22,938	110	85	95	95	105	105	21,385	105	21,813	96	2	2	2	2				
Mahoning.....	11	91	3	11,752	100	97	96	96	103	103	12,237	96	12,604	90	6	6	6	6				
Medina.....	11	93	1	20,299	86	98	71	71	95	95	20,107	95	19,102	76	3	3	3	3				
Portage.....	14	96	3	16,451	86	98	84	84	100	100	10,265	100	10,265	92	2	2	2	2				
Richland.....	15	89	2	29,910	50	86	81	81	97	97	30,407	97	29,495	91	2	2	2	2				
Stark.....	14	82	3	38,555	75	86	80	80	98	98	29,228	95	27,767	83	4	4	4	4				
Summit.....	11	100	1	16,502	50	96	90	90	95	95	15,109	98	14,807	91	3	3	3	3				
Trumbull.....	12	91	3	7,141	80	89	93	93	104	104	16,155	104	16,801	95	3	3	3	3				
Tuscarawas.....	13	89	2	21,413	80	85	82	82	94	94	19,573	100	19,573	84	3	3	3	3				
Wayne.....	13	91	2	39,216	86	92	86	86	98	98	41,514	97	40,269	90	4	4	4	4				
Averages	281	92	3	440,161	86	92	86	86	98	98	459,585	98	453,392	89	4	4	4	4				
Totals.....																						

STATE AVERAGES, TOTALS.

Averages.....	94	4	89	81	95	3,207,717	90	3	2
Totals.....	928	1,654,497	89	81	95	3,044,078	90	3	2

NORTHEAST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF CROPS JULY 1, 1913.

Counties.	Clover.		Potatoes.				Tobacco.	Timothy.	Pasture.		Horses.	Colts.		Cattle.	Calves.		Wool.
	Per Cent.	Area in 1912.	Area Compared With Last Year.	Estimated Area for 1913.	Condition Compared With an Average.	Per Cent.	Area Compared With Last Year.	Per Cent.	Condition Compared With an Average.	Per Cent.	Condition Compared With an Average.	Number Compared With an Average.	Per Cent.	Condition Compared With an Average.	Number Compared With an Average.	Per Cent.	Chips Compared With Last Year.
Ashland.....	6	786	97	715	86	83	83	87	89	95	89	95	96	95	96	96	83
Ashtabula.....	5	3,592	97	3,484	100	72	72	95	97	95	97	96	96	96	100	90	90
Carroll.....	10	357	85	329	81	67	67	74	74	100	91	91	96	93	95	90	83
Columbiana.....	1	3,487	102	3,529	84	75	75	92	92	100	97	97	99	93	99	91	91
Coshocton.....	5	1,187	95	1,128	87	70	70	98	98	93	91	91	97	100	97	91	91
Cuyahoga.....	7	5,783	101	5,840	83	79	79	96	96	93	85	85	98	97	97	91	96
Erie.....	4	3,502	102	3,572	82	66	66	82	82	97	92	92	98	99	99	91	91
Geauga.....	4	2,837	86	2,439	94	79	79	91	91	98	92	92	98	99	91	91	91
Harrison.....	2	143	100	143	94	62	62	84	84	99	94	94	98	100	100	94	94
Holmes.....	9	999	96	633	91	76	76	87	87	100	96	96	94	98	99	91	91
Huron.....	4	1,523	97	1,482	90	77	77	93	93	97	94	94	98	99	100	95	95
Jefferson.....	5	606	96	485	88	72	72	84	84	97	88	88	94	99	94	87	87
Knox.....	9	517	93	491	83	66	66	88	88	100	88	88	94	99	94	90	90
Lake.....	1	1,591	98	1,559	92	80	80	100	100	100	100	100	99	100	96	99	99
Lorain.....	2	3,125	98	3,062	92	77	77	93	93	100	91	91	99	100	92	87	87
Mahoning.....	6	2,384	100	2,385	95	80	80	91	91	98	90	90	94	99	94	89	89
Medina.....	5	3,138	83	2,604	65	62	62	72	72	92	92	92	93	93	86	82	82
Portage.....	5	5,354	93	4,979	93	75	75	92	92	98	95	95	99	99	94	83	83
Richland.....	11	2,094	92	1,926	88	75	75	84	84	97	95	95	96	96	96	88	88
Stark.....	3	4,547	85	3,865	84	61	61	61	61	96	96	96	96	96	85	89	89
Summit.....	12	3,363	93	3,195	88	85	85	82	82	96	87	87	95	95	84	69	69
Trumbull.....	3	3,190	95	3,030	92	76	76	88	88	99	99	94	98	98	95	80	80
Tuscarawas.....	15	1,602	99	1,586	99	70	70	83	83	98	95	95	98	98	98	87	87
Wayne.....	15	3,516	88	3,094	88	64	64	79	79	97	92	92	95	97	89	89	89
Averages.....	5	58,999	95	55,792	95	72	72	86	86	98	93	93	97	97	93	87	87
Totals.....																	
STATE AVERAGES, TOTALS.																	
Averages.....	4	103,261	94	97,500	86	76	76	91	91	97	92	92	96	96	92	87	87
Totals.....																	

SOUTHEAST SECTION.
OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF CROPS JULY 1, 1913.

Counties.	Wheat.		Barley.		Rye.		Oats.		Corn.				
	Prospect Com- pared With Normal Yield.	Damage by Joint Worm.	Estimated Area for the Har- vest.	Prospect Com- pared With Normal Yield.	Prospect Com- pared With Normal Yield.	Prospect Com- pared With Normal Yield.	Prospect Com- pared With Normal Yield.	Area in 1912.	Area Compared With Last Year.	Total Estimated Area for 1913.	Condition Com- pared With Average.	Damage by Cut Worm.	Damage by White Grub Worm.
	No.	Per Cent.	Acres.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Acres.	Per Cent.	Acres.	Per Cent.	Per Cent.	Per Cent.
Athens.....	8	71	8,024	100	81	91	11,906	96	11,429	94	94	2	2
Belmont.....	16	68	15,366	100	93	90	18,360	103	18,917	97	97	7	4
Fairfield.....	10	92	50,813	80	95	74	49,045	94	46,948	91	91	3	1
Gallia.....	8	68	7,781	85	87	87	20,496	98	18,651	87	87	3	1
Guernsey.....	14	77	12,161	85	85	89	15,570	98	15,258	86	86	3	1
Hocking.....	4	86	11,790	82	85	84	12,329	98	12,206	92	92	8	2
Jackson.....	7	74	7,750	100	88	84	12,359	93	11,494	86	86	2	2
Lawrence.....	10	93	2,119	100	88	87	13,745	111	14,257	99	99	4	2
Licking.....	17	87	31,454	100	93	78	49,538	98	48,547	92	92	4	2
Meigs.....	12	75	9,959	100	86	88	12,026	96	12,121	95	95	2	2
Monroe.....	8	56	12,880	100	84	88	16,310	102	16,636	97	97	4	2
Morgan.....	14	87	11,959	100	97	95	12,874	100	12,874	91	91	5	5
Muskingum.....	16	77	24,432	100	89	63	26,222	98	24,698	91	91	8	8
Noble.....	11	64	11,316	100	84	95	14,899	99	14,750	96	96	5	5
Perry.....	13	86	17,786	100	94	88	17,246	95	16,818	88	88	10	3
Vinton.....	6	70	6,952	100	78	78	11,508	94	10,984	89	89	2	2
Washington.....	13	55	18,084	100	79	89	17,412	100	17,412	89	89	2	2
Averages.....	187	76	260,626	96	87	84	333,351	97	323,400	92	92	4	2
Totals.....	187	76	260,626	96	87	84	333,351	97	323,400	92	92	4	2

STATE AVERAGES, TOTALS.

Averages		94		4		89		91		81		95		90		3		2	
Totals		928		1,054,497		3,207,717		3,044,078											

SOUTHEAST SECTION—Concluded.
OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF CROPS JULY 1, 1913.

Counties.	Clover.		Potatoes.				Tobacco.		Timothy.		Pasture.		Horses.		Colts.		Cattle.		Calves.		Wool.	
	Damage by White Grub Worm.	Per Cent.	Area in 1912.	Area Compared With Last Year.	Estimated Area for 1913.	Condition Compared With an Average.	Area Compared With Last Year.	Per Cent.	Prospect Compared With Normal Yield.	Per Cent.	Condition Compared With an Average.	Per Cent.	Condition Compared With an Average.	Per Cent.	Number Compared With an Average.	Per Cent.	Condition Compared With an Average.	Per Cent.	Number Compared With an Average.	Per Cent.	Clip Compared With Last Year.	Per Cent.
Athens.....	1		462	99	457	86	78		76		94		99		96		96		99		93	
Belmont.....	3		643	100	642	94	86		81		96		96		93		93		94		89	
Fairfield.....	4		537	100	537	86	86		79		88		93		89		88		94		90	
Garfield.....	3		150	93	140	71	81		61		88		87		87		91		87		84	
Calla.....	5		153	101	156	89	78		68		84		97		95		97		88		83	
Cuernsey.....	7		509	98	499	84			81		88		95		83		97		76		94	
Hocking.....	4		101	96	97	85			60		74		92		95		86		86		85	
Jackson.....	5		277	101	280	87	83		67		92		99		85		94		84		77	
Lawrence.....	5		728	95	692	86			70		89		96		89		98		98		85	
Licking.....	2		460	93	428	89	62		79		93		98		93		100		100		88	
Meigs.....	4		885	98	867	97	82		86		95		95		100		99		99		79	
Monroe.....	4		175	101	177	87	60		72		93		95		94		100		100		90	
Morgan.....	7		625	97	605	79			61		78		97		90		93		92		90	
Muskingum.....	11		454	98	444	89	89		80		87		97		98		96		91		81	
Noble.....	6		434	99	429	97	89		78		90		94		91		96		94		89	
Perry.....	6		215	91	195	79			87		92		93		88		97		91		93	
Vinton.....	2		1,487	94	1,397	92			69		95		99		85		98		93		80	
Washington.....	4		8,205	97	8,043	97	74		74		89		96		91		95		91		87	
Averages Totals.....																						

STATE AVERAGES, TOTALS.

Averages.....	4		103,261	94	97,500	86	84		76		91		97		92		96		92		87	
Totals.....																						

NORTHWEST SECTION.
OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF CROPS JULY 1, 1913.

Counties.	Wheat.			Barley.	Rye.	Oats.	Corn.						Damage by Cut Worm.	Damage by White Grub		
	Prospect Com- pared With Normal Yield.	Damage by Joint Worm.	Estimated Area for the Har- vest.				Prospect Com- pared With Normal Yield.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.			Per Cent.	
																Per Cent.
Reports Received.	No.	Per Cent.	Per Cent.	Acres.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	
Allen.....	9	109	96	19,058	96	92	75	38,376	100	38,376	97	38,376	97	38,376	2	1
Auglaize.....	6	106	93	18,517	93	82	59	51,420	97	49,877	87	49,877	87	49,877	2	1
Champaign.....	12	107	90	17,716	90	90	70	58,767	92	54,065	90	54,065	90	54,065	5	1
Crawford.....	17	98	88	19,239	88	94	91	37,606	97	36,477	100	36,477	100	36,477	4	1
Darke.....	12	114	90	30,419	90	96	96	93,149	96	89,416	96	89,416	96	89,416	4	1
Defiance.....	12	106	86	13,686	86	97	74	34,542	95	32,814	85	32,814	85	32,814	3	1
Delaware.....	12	109	105	14,282	105	100	100	41,815	101	42,233	87	42,233	87	42,233	3	1
Eaton.....	17	136	103	13,350	103	104	104	39,405	97	38,222	92	38,222	92	38,222	1	1
Fulton.....	11	102	81	17,460	81	88	81	57,972	96	55,652	88	55,652	88	55,652	1	1
Hancock.....	8	91	88	6,213	88	88	82	38,449	91	31,988	78	31,988	78	31,988	1	1
Hardin.....	8	109	72	11,900	72	92	93	65,850	94	61,899	81	61,899	81	61,899	2	1
Henry.....	14	87	93	9,994	93	82	63	46,238	94	43,363	87	43,363	87	43,363	4	1
Logan.....	6	121	83	7,143	83	97	97	26,994	101	30,293	86	30,293	86	30,293	4	1
Lucas.....	8	76	85	10,251	85	74	57	51,754	92	47,613	83	47,613	83	47,613	3	1
Marion.....	10	102	102	19,963	102	85	86	26,906	100	26,906	96	26,906	96	26,906	2	1
Mercer.....	13	90	93	12,334	93	98	83	25,997	102	25,997	76	25,997	76	25,997	3	1
Morrow.....	6	131	85	7,705	85	101	86	63,178	96	60,650	73	60,650	73	60,650	3	1
Paulding.....	10	101	94	5,266	94	57	67	59,322	82	48,644	82	48,644	82	48,644	3	1
Putnam.....	12	97	74	13,446	74	87	67	53,155	82	48,587	68	48,587	68	48,587	3	1
Sandusky.....	6	107	98	20,023	98	87	89	53,155	86	49,535	86	49,535	86	49,535	3	1
Seneca.....	13	93	84	46,701	84	93	97	54,111	93	47,984	96	47,984	96	47,984	3	1
Shelby.....	10	117	87	19,517	87	86	75	51,596	93	50,506	89	50,506	89	50,506	3	1
Union.....	13	101	100	10,520	100	93	59	52,072	97	50,506	88	50,506	88	50,506	2	1
Van Wert.....	7	98	71	6,945	71	83	68	6,438	94	62,111	88	62,111	88	62,111	2	1
Williams.....	9	128	85	14,788	85	96	81	33,221	95	31,559	95	31,559	95	31,559	2	1
Wood.....	14	114	95	9,160	95	96	94	96,785	94	91,977	87	91,977	87	91,977	2	1
Wyandot.....	9	100	80	15,441	80	94	71	41,164	98	40,340	93	40,340	93	40,340	2	1
Averages.....		105	83	410,037	83	90	77	1,349,119	94	1,266,291	87	1,266,291	87	1,266,291	3	1
Totals.....	274															

NORTHWEST SECTION—Concluded.
OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF CROPS JULY 1, 1913.

Counties.	Clover.		Potatoes.				Tobacco.	Timothy.	Pasture.	Horses.	Colts.	Cattle.	Calves.	Wool.
	Damage by White Grub Worm.	Per Cent.	Area in 1912.	Area Compared With Last Year.	Estimated Area for 1913.	Condition Compared With Average.	Area Compared With Last Year.	Prospect Compared With Normal Yield.	Condition Compared With Average.	Condition Compared With Average.	Number Compared With Average.	Condition Compared With Average.	Number Compared With Average.	Clip Compared With Last Year.
Allen.....	5	554	101	559	78	100	71	100	100	100	94	100	99	95
Auglaize.....	1	852	99	843	71	100	81	96	100	100	96	100	99	95
Champaign.....	2	214	91	194	80	100	77	94	93	90	90	100	79	80
Crawford.....	1	1,317	96	1,744	94	100	83	96	100	100	96	100	93	84
Darke.....	1	1,128	99	1,116	90	86	91	100	94	98	98	100	94	89
Defiance.....	2	655	92	602	85	75	77	97	96	97	94	98	98	89
Delaware.....	1	444	97	430	84	75	67	84	98	94	94	91	95	92
Fulton.....	1	565	92	520	97	75	99	100	100	99	98	100	100	94
Hancock.....	1	718	95	682	89	75	85	100	96	96	92	100	91	93
Hardin.....	12	829	93	771	77	90	84	89	100	100	97	100	98	93
Henry.....	1	599	93	507	67	75	95	100	100	100	97	100	96	96
Logan.....	1	456	89	406	78	90	78	86	97	87	87	95	87	78
Lucas.....	2	2,994	95	2,844	86	75	104	100	96	100	100	100	94	96
Marion.....	1	661	96	568	84	75	73	94	91	83	83	94	88	90
Mercer.....	1	541	93	503	83	75	76	100	98	96	96	99	90	92
Morrow.....	1	740	95	712	94	77	90	98	93	91	91	97	95	89
Ottawa.....	6	655	96	629	86	75	99	100	100	100	100	100	100	100
Paulding.....	6	228	96	219	73	75	75	89	97	92	92	97	92	93
Putnam.....	1	621	93	522	71	75	84	98	97	86	86	96	81	81
Sandusky.....	1	2,102	93	1,955	79	75	84	100	93	78	78	96	87	78
Seneca.....	1	1,355	98	1,328	89	90	96	100	96	100	96	100	96	92
Shelby.....	1	726	93	675	100	90	83	97	100	89	89	100	97	87
Union.....	6	149	99	149	75	75	63	97	93	83	83	94	90	86
Van Wert.....	1	952	91	861	75	75	54	93	96	96	96	100	92	96
Williams.....	1	356	99	352	80	80	73	92	100	96	96	100	92	96
Wood.....	1	838	99	721	89	89	90	100	99	99	99	100	100	93
Wyandot.....	1	446	93	415	89	89	92	96	97	88	88	97	88	93
Averages.....	2	22,207	94	20,827	83	90	82	96	97	92	92	98	93	89
Totals.....														

SOUTHWEST SECTION.
OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF CROPS JULY 1, 1913.

Counties.	Wheat.			Barley.	Rye.	Oats.	Corn.						Damage by White Grub					
	Reports Received.	Prospect Com- pared With Normal Yield.	Damage by Joint Worm.				Estimated Area for the Har- vest.	Prospect Com- pared With Normal Yield.	Per Cent.	Prospect Com- pared With Normal Yield.	Per Cent.	Area in 1912.		Area Compared With Last Year.	Total Estimated Area for 1913.	Condition Com- pared With Average.	Damage by Cut Worm.	Per Cent.
Adams.....	11	79	11	14,501		91	73	36,845	95	35,903	90	8	4					
Brown.....	11	87	5	14,472		90	81	46,375	103	46,375	91	5	3					
Butler.....	5	105	5	45,067	93	96	75	58,725	95	55,798	96		3					
Clark.....	6	103	8	23,951		98	74	59,053	89	52,557	98		2					
Clermont.....	9	98	1	12,977	100	96	78	39,457	91	33,906	79		1					
Cinton.....	10	97	6	32,319		96	69	65,752	93	61,149	100		4					
Fayette.....	5	88	12	35,397	100	95	68	54,690	87	47,580	96		2					
Franklin.....	15	99	3	25,519		92	59	60,990	99	60,350	85		3					
Greene.....	6	98	7	31,370	82	92	70	62,152	88	54,994	95		1					
Hamilton.....	7	108	3	12,149		99	64	20,893	83	17,946	91		2					
Highland.....	16	84	7	34,736		82	82	58,934	87	51,273	97		4					
Madison.....	6	98	3	16,106		83	80	76,426	95	72,605	100		2					
Miami.....	7	111	2	27,446	89	95	83	58,425	95	55,503	90		3					
Montgomery.....	12	111	3	21,515		95	75	49,903	87	43,416	95		2					
Pickaway.....	10	103	4	59,294	100	96	83	80,354	92	73,926	94		2					
Pike.....	9	77	13	15,678	60	93	93	24,578	102	25,070	89		3					
Preble.....	6	120	2	38,205		99	86	69,797	98	68,401	97		1					
Ross.....	15	84	4	44,750		91	78	69,540	99	68,845	97		4					
Scioto.....	13	86	4	13,790	100	103	85	23,647	96	22,701	93		2					
Warren.....	17	99	5	24,431		99	81	50,997	100	50,997	96		1					
Averages.....	186	97	5	543,673	91	94	77	1,065,662	94	1,000,995	93		3					
Totals.....																		
STATE AVERAGES, TOTALS.																		
Averages.....	928	94	4	1,654,497	89	91	81	3,207,717	95	3,044,078	90		3	2				
Totals.....																		

SOUTHWEST SECTION—Concluded.
OFFICIAL REPORT OF THE OHIO DEPARTMENT OF AGRICULTURE ON CONDITION OF CROPS JULY 1, 1913.

Counties.	Clover.			Potatoes.				Tobacco.		Timothy.		Pasture.		Horses.		Cattle.		Calves.		Wool.	
	Per Cent.	Area in 1912.	Area Compared With Last Year.	Estimated Area for 1913.	Condition Compared With Average.	Area Compared With Last Year.	Per Cent.	Per Cent.	Area Compared With Last Year.	Per Cent.	Per Cent.	Condition Compared With Average.	Per Cent.	Condition Compared With Average.	Per Cent.	Number Compared With Average.	Per Cent.	Number Compared With Average.	Per Cent.	Clip Compared With Last Year.	Per Cent.
Adams.....	11	152	100	152	78	92	73	90	100	96	96	96	96	96	96	96	96	96	96	96	96
Brown.....	3	216	99	213	88	85	67	90	95	90	95	90	95	90	95	90	95	90	95	90	95
Butler.....	3	1,033	81	836	86	100	85	100	99	90	99	100	99	90	99	100	99	100	99	90	95
Clark.....	3	721	89	641	89	80	82	82	95	87	87	82	95	87	87	82	95	87	87	82	95
Clermont.....	2	863	104	898	88	92	70	92	95	83	83	82	95	92	95	93	95	100	95	95	95
Clinton.....	2	65	97	63	94	95	83	95	95	83	83	95	95	96	96	92	95	95	95	95	95
Fayette.....	4	9	90	8	94	95	83	95	95	83	83	95	95	96	96	92	95	95	95	95	95
Franklin.....	3	1,457	99	1,442	63	100	64	100	97	64	64	82	97	97	97	97	97	100	97	100	93
Greene.....	2	599	96	533	80	100	86	100	97	86	86	96	90	90	90	94	96	96	96	96	93
Hamilton.....	2	3,897	98	3,728	80	100	68	100	97	68	68	88	97	97	88	100	96	96	96	96	94
Highland.....	15	34	98	33	87	80	78	80	95	78	78	83	94	94	94	93	93	93	93	93	89
Madison.....	1	1,105	87	1,04	87	83	69	83	97	69	69	83	97	97	97	99	99	98	98	98	88
Miami.....	12	580	92	628	85	80	82	83	87	82	82	87	87	87	87	97	98	97	97	97	91
Montgomery.....	1	92	95	87	85	80	72	80	80	72	72	100	96	96	96	90	95	92	92	92	96
Pickaway.....	7	419	91	377	95	75	67	75	75	67	67	89	94	97	97	89	91	97	97	97	96
Pike.....	2	269	94	253	96	80	68	80	80	68	68	98	98	100	98	100	92	92	92	92	94
Preble.....	3	594	92	546	90	90	77	90	90	77	77	92	92	97	97	91	91	91	91	91	94
Ross.....	1	1,159	98	1,136	90	79	70	79	79	70	70	92	92	97	97	98	98	98	98	98	93
Scioto.....	1	302	99	299	84	70	86	70	86	86	86	94	94	91	91	100	100	94	94	100	100
Warren.....	4	13,760	93	12,838	86	83	76	83	92	92	92	92	92	96	96	96	96	93	93	87	87
Averages Totals.....	4	13,760	93	12,838	86	83	76	83	92	92	92	92	92	96	96	96	96	93	93	87	87
STATE AVERAGES, TOTALS.																					
Averages.....	4	103,261	94	97,500	86	84	76	84	91	91	91	91	91	97	97	92	92	92	92	87	87
Totals.....	4	103,261	94	97,500	86	84	76	84	91	91	91	91	91	97	97	92	92	92	92	87	87

Official Report

OF THE

Ohio Agricultural Commission

ON THE

Condition of Crops, October, 1913

The following report is compiled from returns received from the official correspondents of the Department:

WHEAT—Estimated area harvested.....	1,654,497 acres.
“ —Product per acre.....	17 bushels.
“ —Total estimated product for 1913.....	27,297,467 bushels.
“ —Quality compared with an average.....	96 per cent.
“ —Crop of 1912 still in producers' hands.....	10 per cent.
OATS—Area as returned by township assessors.....	1,610,196 acres
“ —Product per acre.....	28 bushels.
“ —Total estimated product for 1913.....	44,950,805 bushels.
“ —Quality compared with an average.....	90 per cent.
BARLEY—Fall and spring:	
“ —Area as returned by township assessors.....	44,399 acres.
“ —Product per acre.....	22 bushels.
“ —Total estimated product for 1913.....	994,164 bushels.
“ —Quality compared with an average.....	89 per cent.
RYE—Area as returned by township assessors.....	185,473 acres.
“ —Product per acre.....	16 bushels.
“ —Total estimated product for 1913.....	2,971,078 bushels.
“ —Quality compared with an average.....	95 per cent.
CORN—Prospect compared with normal yield.....	83 per cent.
“ —Cut up for fodder.....	75 per cent.
“ —Average date for fodder cutting.....	September 18.
POTATOES—Probable total yield compared with last year.....	50 per cent.
TOBACCO—Prospect compared with an average yield.....	69 per cent.
PASTURES—Condition compared with an average.....	79 per cent.
APPLES—Prospect compared with last year.....	33 per cent.

Ohio's estimated wheat production for harvest just passed was 27,297,467 bushels, which is approximately 17,000,000 more bushels than the estimated production of one year ago; but the crop harvested in 1912 was practically a failure, many counties not harvesting enough wheat to supply seed for the next crop. Compared with estimated production of 1911 and 1910, the 1913 crop falls below them about 4,000,000 bushels. The average production per acre is 17 bushels as against 15 bushels

in 1911 and 16 bushels in 1910; the 1912 crop being nil cannot be used for comparison. Quality compared with an average is estimated at 96 per cent. as against 76 per cent. in 1912, 94 in 1911 and 93 in 1910. These facts may be construed to show that farmers are improving the fertility of their soil and seed sown. If acreage would be brought up to that harvested in 1911 or 1910, or better, Ohio would harvest her quota of wheat. Of the crop of 1912 it is estimated that 10 per cent. still remains in producers' hands.

Oats show a low production, due to extreme dry weather during latter part of May and June, heads being very short and not well filled. Harvest being estimated at 44,950,805 bushels; this is approximately 39,000,000 bushels less than 1912 production; 2,000,000 less than in 1911 and 9,000,000 less than in 1910. The 1912 acreage was the greatest in years, due to so much wheat being winter-killed and sown to oats. Favorable weather made 1912 average production per acre 44 bushels, while 1913 average production was estimated at 28 bushels per acre.

Barley also shows a decrease in estimated production per acre, due to dry weather, the 1913 estimated production per acre being 22 bushels as against 29 bushels in 1912. Estimated 1913 acreage was 7,000 acres more than in 1912, but decrease in production per acre makes estimated total production less. Acreage of barley has been steadily increasing for past four years, having been about 17,000 acres in 1910 to 44,399 acres in 1913.

Rye shows a decrease in production per acre as compared with 1912, being 16 bushels in 1913 as against 17 bushels in 1912, but in 1913 the acreage was 100,000 more than in 1912. The total estimated production for 1913 is 2,971,076 bushels as against 1,451,389 in 1912. Like barley, the acreage has been steadily increasing for the past four years. In 1910 the acreage was 64,000.

Corn prospects are not flattering. The present prospect is estimated at 83 per cent., based upon 35 bushels per acre representing 100 per cent. On the corresponding date one year ago, prospect was estimated at 96 per cent. The low prospect this year was caused by extreme dry weather when corn was earing. The 1913 estimated acreage is 150,000 less than 1912. This with the low prospects will bring the total production materially lower than in 1912.

Reports indicate that the potato crop will be short. The probable total yield as compared with last year is 50 per cent. The 1912 estimate was 124 per cent. as compared with previous year.

Apple prospects compared with last year is 33 per cent. The 1912 prospect as compared with 1911 yield was 63 per cent.

NORTHEAST SECTION.
OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCT OF WHEAT, OATS, BARLEY AND RYE
AND THE CONDITION OF OTHER CROPS, OCTOBER 1, 1913.

Counties.	Wheat.				Oats.				Barley.					
	Number Reports Received.	Estimated Area Harvested.	Product Per Acre	Total Estimated Product For 1913.	Bushels.	Quality Compared With an Average.	Crop of 1912 Still in Pro-	Per Cent.	Area as Returned by Township Assessors.	Product Per Acre	Total Estimated Product For 1913.	Bushels.	Quality Compared With an Average.	Per Cent.
Ashland.....	5	21,035	19	399,665	105	18	21,310	25	532,750	91	105	15	1,575	95
Ashtabula.....	17	7,186	14	100,604	91	10	30,892	39	1,203,788	103	51	15	1,020	92
Carroll.....	9	13,682	12	164,184	88	17	13,620	25	338,500	89				
Columbiana.....	12	20,321	12	243,852	95	8	20,072	27	541,944	99	20	20		
Codroton.....	15	24,743	13	321,659	95	17	11,367	28	318,276	96				
Cuyahoga.....	10	8,232	17	140,794	96	1	12,412	38	471,656	100	32	30	960	100
Erle.....	8	13,914	19	264,366	98	13	14,412	29	403,536	98	880	20	17,600	95
Geauga.....	12	3,952	18	71,136	98	2	17,539	37	643,943	104	27	15	405	90
Harrison.....	11	9,665	13	125,645	91	12	17,893	24	189,432	92	22	21	462	92
Holmes.....	4	23,851	16	381,645	100	5	17,655	25	441,375	104	15	20	300	95
Huron.....	14	28,906	17	491,402	95	12	32,678	31	1,013,018	99	368	19	6,992	100
Jefferson.....	9	10,522	13	136,786	87	15	10,579	25	264,475	94	7	23	161	90
Knox.....	19	27,116	17	460,972	99	8	7,836	27	201,572	92	27	21	567	95
Lake.....	3	2,809	19	53,371	98	20	6,922	35	242,270	100	40	20	800	94
Lorain.....	10	22,938	18	412,894	97	4	26,907	33	587,996	94	350	30	10,500	100
Mahoning.....	10	11,752	11	126,272	85	11	17,212	33	587,931	96	121	21	2,541	96
Medina.....	9	20,269	15	304,485	99	3	23,303	29	675,787	88				
Portage.....	11	16,451	15	246,675	97	4	25,015	33	825,495	97				
Richland.....	14	29,910	16	478,560	97	18	26,576	25	717,309	93	63	18	1,134	87
Stark.....	14	38,555	16	616,890	89	3	30,983	25	774,575	89	18	28	504	94
Summit.....	12	16,502	16	264,032	101	16	19,180	30	575,400	96	10	20	200	91
Trumbull.....	12	21,413	13	92,833	85	2	23,504	33	775,634	96	13	20	260	94
Tuscarawas.....	11	21,413	13	278,369	86	5	18,317	28	512,876	94				
Wayne.....	9	39,216	19	745,104	105	21	30,197	31	936,107	96	52	25	1,300	97
Averages.....			16		95	10	466,381	32	14,061,145	96	2,221	21	47,681	94
Totals.....	260	440,161		6,925,146										

STATE AVERAGES AND TOTALS.

Averages.....	897	1,654,497	17	27,297,467	96	10	1,610,196	28	44,950,805	90	44,369	22	994,164	89
Totals.....														

NORTHEAST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCT OF WHEAT, OATS, BARLEY AND RYE
AND THE CONDITION OF OTHER CROPS, OCTOBER 1, 1913.

Counties.	Rye.				Corn.			Potatoes.	Tobacco.	Pastures.	Apples.
	Area as Returned by Township Assessors.	Product Per Acre Estimated from Threshers' Returns.	Total Estimated Product For 1913.	Quality Compared With an Average.	Prospect Compared With an Average.	Cut Up For Rodder.	Date of Cutting Days After September 1st.				
	Acres.	Bushels.	Bushels.	Per Cent.	Per Cent.	Per Cent.	Days.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Ashland.....	3,161	17	53,737	100	87	82	19	73		85	15
Ashabula.....	982	13	12,766	93	71	46	20	55		76	40
Carroll.....	486	11	5,368	96	89	98	21	62		88	32
Columbiana.....	545	13	7,085	97	90	81	20	71		89	30
Coshocton.....	1,561	12	18,732	98	87	92	19	63		82	27
Cuyahoga.....	557	16	8,912	93	83	35	18	73		80	56
Eric.....	1,078	19	20,482	99	69	79	20	49		77	38
Geauga.....	355	15	5,325	100	82	53	20	69		83	32
Harrison.....	162	12	1,944	88	92	88	21	59		90	24
Holmes.....	837	11	9,207	100	82	94	19	81		84	24
Huron.....	1,260	28	35,280	100	82	73	24	51		75	31
Jefferson.....	867	15	13,008	95	87	71	24	56		84	25
Knox.....	3,684	16	58,944	99	100	83	19	63	100	86	21
Lake.....	589	30	17,670	100	78	41	21	45		80	35
Larkin.....	572	22	12,584	97	92	50	21	58		70	33
Maconing.....	431	12	5,172	87	77	49	22	58		73	32
Medina.....	1,066	19	20,264	100	66	63	18	66	65	43	25
Portage.....	497	16	7,952	94	70	61	20	68	50	78	39
Richland.....	4,582	17	73,312	97	89	88	23	61		80	29
Stark.....	442	17	7,512	95	65	75	23	57		82	30
Summit.....	462	15	6,972	93	74	61	23	64		64	61
Trembui.....	510	13	6,742	95	67	45	19	52		60	29
Tuscarawas.....	1,111	15	16,665	100	72	93	19	61		71	17
Wayne.....	854	20	17,080	100	92	91	22	84	96	86	41
Averages.....	20,665	17	442,712	97	81	71	Sept. 20	62	77	75	31
Totals.....											

STATE AVERAGES AND TOTALS.

Averages.....	16	95	83	75	50	69	70	33
Totals.....	185,473	2,971,078						

SOUTHEAST SECTION.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCT OF WHEAT, OATS, BARLEY AND RYE AND THE CONDITION OF OTHER CROPS, OCTOBER 1, 1913.

Counties.	Wheat.						Oats.						Barley.					
	Number Reports Received.	Estimated Area Harvested.	Product Per Acre	Bushels.	Total Estimated Product For 1913.	Quality Compared With an Average.	Crop of 1912 Still in Pro-ducers' Hands.	Area as Re-turned by Township As-sessors.	Product Per Acre	Bushels.	Total Estimated Product For 1913.	Quality Compared With an Average.	Area of Winter and Spring as Returned by Township As-sessors.	Product Per Acre	Bushels.	Total Estimated Product For 1913.	Quality Compared With an Average.	
Athens.....	10	8,024	11	88,264	95	20	2,494	28	64,844	98	15	235	99					
Belmont.....	14	15,366	10	153,660	79	11	12,526	25	212,150	91	15	432	95					
Fairfield.....	11	50,813	18	914,634	104	11	2,439	30	73,170	80	27	288	99					
Gallia.....	7	7,781	11	85,591	82	16	4,467	18	80,408	64	16	486	99					
Guernsey.....	13	12,161	11	133,771	93	12	7,086	23	162,978	90	27							
Hocking.....	4	11,790	12	141,480	88	2	1,240	19	23,560	87	17							
Jackson.....	8	7,750	10	77,500	93	5	2,177	23	50,071	84	3	306	98					
Lawrence.....	9	21,119	11	23,309	99	3	3,592	20	71,840	85	17	51	96					
Licking.....	15	31,454	14	440,356	95	3	9,114	27	246,078	94	18	288	95					
Meigs.....	12	9,957	10	90,570	78	6	2,853	23	65,619	91	4	68	90					
Monroe.....	11	12,880	9	115,920	81	4	8,945	26	232,570	89	5	60	60					
Morgan.....	10	11,959	14	167,426	89	7	1,999	25	49,975	93	10							
Muskingum.....	14	24,432	16	390,912	93	7	5,323	23	122,429	85	18	180	90					
Noble.....	11	11,316	10	113,160	76	6	4,534	24	108,816	91	5	20	40					
Perry.....	12	17,786	13	231,218	97	17	2,460	26	63,960	95	7	105	91					
Vinton.....	8	6,952	10	69,520	92	1	2,161	21	45,381	94	2	36	92					
Washington.....	14	18,084	7	126,588	69	9	7,436	21	156,156	80								
Averages.....	13				88	8	80,946	23		88	156		88					
Totals.....	183	260,626		3,372,879					1,330,003			2,625						

STATE AVERAGES AND TOTALS.

Averages.....	887	1,654,497	17	27,297,467	96	10	1,610,196	28	44,950,805	90	44,399	23	994,164	89
Totals.....														

SOUTHEAST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCT OF WHEAT, OATS, BARLEY AND RYE AND THE CONDITION OF OTHER CROPS, OCTOBER 1, 1913.

Counties	Rye.				Corn.			Potatoes.	Tobacco.	Pastures.	Apples.	
	Area as Returned by Township Assessors.	Product Per Acre Estimated From Threshers' Re- turns.	Total Estimated Product For 1913.	Quality Com- pared With an Average.	Cut Up For Potatoes.		Date of Cutting Days After September 1st.	Probable Total Yield Com- pared With Last Year.	Prospect Com- pared With an Average.	Condition Com- pared With an Average.	Prospect Com- pared With Last Year.	
					Per Cent.	Per Cent.						
	Acres.	Bushels.	Bushels.	Per Cent.	Per Cent.	Per Cent.	Days.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	
Athens.....	134	12	1,608	90	77	78	13	46	77	74	90	6
Belmont.....	1,587	15	23,805	95	94	81	16	17	77	74	95	18
Fairfield.....	950	18	17,100	102	87	87	17	49	77	74	95	16
Galila.....	363	12	4,356	76	57	79	19	17	77	74	78	16
Guernsey.....	799	13	10,387	95	79	86	17	58	77	74	96	17
Hocking.....	196	12	2,352	91	81	75	12	39	77	74	86	52
Jackson.....	232	18	4,176	95	58	89	22	42	77	74	76	7
Lawrence.....	62	12	744	90	56	84	16	34	77	74	53	23
Licking.....	6,209	15	93,135	95	88	91	21	63	77	74	90	44
Meigs.....	283	14	3,962	100	72	84	17	42	77	74	81	7
Monroe.....	1,140	12	13,680	95	80	85	16	66	77	74	95	13
Morgan.....	149	15	2,235	95	86	97	12	60	77	74	99	5
Muskingum.....	673	19	12,787	93	91	78	20	46	77	74	70	16
Noble.....	143	13	1,859	84	88	70	20	60	77	74	99	14
Perry.....	404	12	4,848	98	91	87	19	60	77	74	98	15
Vinton.....	90	11	990	92	84	100	18	47	77	74	79	9
Washington.....	347	10	3,470	95	77	78	19	45	77	74	99	8
Averages.....	15	15	201,494	93	79	84	Sept. 17	50	77	74	86	18
Totals.....	13,861											

STATE AVERAGES AND TOTALS.

Averages.....	16		2,971,078	95	83	75	Sept. 18	50	68	79	33
Totals.....	185,473										

NORTHWEST SECTION.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCT OF WHEAT, OATS, BARLEY AND RYE
AND THE CONDITION OF OTHER CROPS, OCTOBER 1, 1913.

Counties.	Wheat.						Oats.						Barley.					
	Number Reports Received.	Estimated Area	Product Per Acre	Estimated from Threshers' Returns.	Total Estimated Product for 1913.	Bushels.	Per Cent.	Quality Compared With an Average.	Crop of 1912 Still in Producers' Hands.	Area as Returned by Township Assessors.	Product Per Acre Estimated from Threshers' Returns.	Bushels.	Per Cent.	Quality Compared With an Average.	Area of Winter and Spring as Returned by Township Assessors.	Product Per Acre Estimated from Threshers' Returns.	Total Estimated Product for 1913.	Quality Compared With an Average.
Allen.....	11	16,058	19	305,102	103	7	21,518	20	430,360	80	2,563	23	58,328	92	2,563	23	58,328	92
Auglaize.....	8	18,517	20	370,340	103	1	28,549	23	656,627	78	1,244	24	29,856	81	1,244	24	29,856	81
Champaign.....	16	19,239	21	409,857	103	0	24,628	30	738,870	94	253	22	5,566	90	253	22	5,566	90
Crawford.....	12	30,419	19	365,541	98	1	29,250	33	965,250	95	471	18	8,478	88	471	18	8,478	88
Defiance.....	10	13,686	23	314,778	97	11	42,119	30	1,263,570	83	224	15	3,360	60	224	15	3,360	60
Delaware.....	13	14,282	23	257,076	105	12	40,350	23	528,050	82	1,633	20	32,660	85	1,633	20	32,660	85
Elmore.....	10	13,350	18	307,050	102	8	13,821	26	359,346	96	21	21	22	894	21	22	894	95
Hancock.....	11	17,460	23	331,740	100	12	29,207	31	915,399	96	3,419	26	88,894	95	3,419	26	88,894	95
Hardin.....	10	6,213	17	105,621	101	5	21,514	26	759,383	81	1,788	17	30,363	87	1,788	17	30,363	87
Henry.....	10	11,900	23	273,700	100	5	47,479	26	1,276,891	86	3,650	22	80,300	83	3,650	22	80,300	83
Logan.....	10	9,994	19	189,898	105	8	26,259	24	630,216	88	2,454	17	16,473	83	2,454	17	16,473	83
Lucas.....	8	7,143	24	171,432	101	14	19,804	24	673,336	86	1,111	23	56,142	83	1,111	23	56,142	83
Marion.....	8	10,251	19	194,769	99	14	29,627	26	859,183	88	2,300	20	52,180	100	2,300	20	52,180	100
Mercer.....	14	12,834	15	359,334	101	8	37,329	24	895,896	94	2,300	20	52,180	79	2,300	20	52,180	79
Morrow.....	13	7,705	23	185,010	101	13	15,201	26	440,829	86	2,815	16	16,473	78	2,815	16	16,473	78
Putnam.....	8	5,268	20	105,320	99	5	58,720	33	587,224	76	4,993	20	56,300	75	4,993	20	56,300	75
Sandusky.....	9	20,023	26	500,572	101	18	37,691	27	1,183,942	89	1,962	19	13,624	80	1,962	19	13,624	80
Seneca.....	12	46,701	20	934,090	99	4	34,066	33	1,942,494	92	742	33	60,822	82	742	33	60,822	82
Shelby.....	9	19,518	21	409,876	106	2	22,503	27	867,151	91	263	22	5,562	89	263	22	5,562	89
Union.....	12	10,530	20	198,860	102	13	22,503	27	867,151	91	1,257	22	27,654	90	1,257	22	27,654	90
Van Wert.....	8	6,445	26	384,468	104	40	30,082	24	962,916	80	2,429	21	50,946	87	2,429	21	50,946	87
Williams.....	13	9,160	25	229,000	101	18	26,587	26	771,862	84	2,505	27	67,636	84	2,505	27	67,636	84
Wood.....	9	15,561	19	295,466	97	5	22,016	31	682,486	89	2,08	22	4,576	90	2,08	22	4,576	90
Wyandot.....	268	410,067	20	8,389,754	100	9	833,015	28	23,498,085	88	39,364	22	876,325	85	39,364	22	876,325	85
Averages Totals.....																		

NORTHWEST SECTION.
OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCT OF WHEAT, OATS, BARLEY AND RYE
AND THE CONDITION OF OTHER CROPS, OCTOBER 1, 1913.

Counties.	Rye.				Corn.			Potatoes.	Tobacco.	Pastures.	Apples.
	Area as Returned by Township Assessors.	Product Per Acre Estimated From Threshers' Returns.	Total Estimated Product For 1913.	Quality Compared With an Average.	Prospect Com-pared With an Average.	Cut Up For Rodder.	Date of Cutting For Rodder, Days After September 1st.	Probable Total Yield Com-pared With Last Year.	Prospect Com-pared With an Average.	Condition Com-pared With an Average.	Prospect Com-pared With Last Year.
Allen.....	8,125	14	113,750	94	100	86	19	45	—	104	26
Auglaize.....	6,419	16	102,704	87	91	82	22	46	—	90	31
Champaign.....	3,567	16	57,072	99	95	86	18	47	—	68	9
Crawford.....	1,465	13	26,370	93	108	81	19	57	—	93	87
Darke.....	9,690	18	144,350	97	82	68	17	55	66	73	22
Defiance.....	1,769	15	31,842	94	81	61	18	39	75	86	30
Delaware.....	3,587	17	60,979	98	92	77	13	48	—	91	37
Fulton.....	1,063	17	18,071	81	101	77	21	35	—	79	21
Hancock.....	6,069	14	85,966	90	97	87	20	47	—	91	28
Hardin.....	5,087	15	75,905	91	88	59	22	38	—	88	56
Henry.....	1,137	24	27,288	99	88	57	19	40	—	79	17
Logan.....	4,902	16	78,432	99	88	78	17	49	—	78	17
Lucas.....	981	13	12,753	92	79	63	18	49	—	64	53
Marion.....	1,602	16	25,632	97	83	62	23	51	—	86	21
Mercer.....	4,839	16	77,424	96	99	80	19	47	—	91	17
Morrow.....	3,118	15	46,770	98	106	89	18	64	90	94	39
Ottawa.....	442	22	9,724	92	84	20	8	40	—	76	63
Paulding.....	1,102	23	25,346	99	86	60	20	47	—	67	27
Putnam.....	2,453	16	36,248	89	96	83	18	46	—	76	17
Sandusky.....	3,560	21	74,760	94	73	77	22	54	—	64	57
Seneca.....	1,375	17	23,375	95	86	84	16	43	—	68	52
Shelby.....	1,811	18	32,598	96	90	58	20	35	55	89	14
Union.....	4,386	14	81,404	96	85	81	21	35	—	77	32
Van Wert.....	3,819	19	72,461	94	87	74	13	52	—	93	15
Williams.....	1,040	22	22,880	100	73	86	17	41	60	93	32
Wood.....	1,283	20	25,860	96	79	61	19	48	—	76	17
Wyandot.....	2,179	23	50,117	97	97	80	16	43	—	89	17
Averages Totals.....	86,860	16	1,423,081	95	90	73	Sept. 19	47	66	82	35

SOUTHWEST SECTION

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCT OF WHEAT, OATS, BARLEY AND RYE AND THE CONDITION OF OTHER CROPS, OCTOBER 1, 1913.

Counties.	Wheat.					Oats.					Barley.										
	Number Reports Received.					Estimated Area Harvested.	Product Per Acre Estimated From Turns.	Total Estimated Product For 1913.	Quality Com- pared With an Average.	Crop of 1912 Still in Pro- duers' Hands.	Per Cent.	Per Cent.	Area as Re- turned by Township As- sessors.	Product Per Acre Estimated From Turns.	Bushels.	Per Cent.	Area of Winter and Spring as Returned by Township As- sessors.	Product Per Acre Estimated From Turns.	Bushels.	Total Estimated Product For 1913.	Quality Com- pared With an Average.
	Acres.	Bushels.	Bushels.	Per Cent.	Per Cent.																
Adams.....	12	14,501	12	274,012	95	11	4,967	27	134,109	96	17	38	30	646	77						
Brown.....	17	14,472	16	231,552	96	20	7,315	23	188,245	84	1,055	33	30	31,650	95						
Butler.....	5	45,067	20	90,134	96	11	7,590	22	166,980	82	1,055	22	20	1,900	90						
Clark.....	5	23,951	19	455,069	104	4	11,267	32	360,444	86	6	20	20	120	90						
Clermont.....	11	12,877	13	168,701	96	11	8,269	19	157,491	84	26	20	20	520	85						
Clinton.....	10	32,319	17	549,423	98	6	6,853	25	171,325	79	8	10	10	80	90						
Dayton.....	5	35,397	18	637,146	97	4	3,250	28	91,000	90	36	22	22	792	90						
Franklin.....	15	25,519	18	459,342	100	17	15,151	25	378,775	81	198	25	25	4,950	40						
Greene.....	6	31,370	16	501,320	104	8	8,623	29	250,067	86	81	35	35	2,835	100						
Hamilton.....	7	12,149	17	206,533	104	8	3,110	19	59,090	72	189	20	20	3,780	90						
Highland.....	10	34,736	13	451,568	95	27	4,285	24	102,840	85	76	25	25	1,900	90						
Madison.....	8	16,106	20	322,120	102	6	53,516	31	1,653,996	93	430	20	20	8,800	87						
Miami.....	9	27,446	21	576,368	99	11	29,366	28	822,248	92	40	22	22	880	90						
Montgomery.....	12	21,515	22	473,330	101	16	13,358	24	320,592	86	16	25	25	400	92						
Pickaway.....	9	59,294	21	1,128,588	105	5	2,003	33	66,099	92	105	22	22	4,200	93						
Pike.....	9	15,678	10	156,780	94	17	3,729	19	70,851	89	242	20	20	5,324	91						
Preble.....	5	38,205	18	687,690	104	15	10,266	17	173,522	84	10	20	20	4,200	90						
Ross.....	10	44,750	15	671,250	102	15	2,743	27	74,061	95	10	20	20	5,324	91						
Schoonover.....	12	13,790	13	179,270	95	20	3,509	25	87,725	84	242	22	22	5,324	91						
Warren.....	9	24,431	16	390,596	102	8	10,744	23	247,112	91	24	24	24	67,033	85						
Averages.....	186	543,673	16	8,609,688	99	12	209,954	26	5,561,572	87	2,628	24	24	67,033	85						
Totals.....																					

STATE AVERAGES AND TOTALS.

Averages.....	867	1,654,497	17	27,297,467	96	10	1,610,196	28	44,950,805	90	44,399	22	994,164	89
Totals.....	867	1,654,497	17	27,297,467	96	10	1,610,196	28	44,950,805	90	44,399	22	994,164	89

SOUTHWEST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCT OF WHEAT, OATS, BARLEY AND RYE
AND THE CONDITION OF OTHER CROPS, OCTOBER 1, 1913.

Counties.	Rye.				Corn.				Potatoes.	Tobacco.	Pastures.	Apples.
	Area as Returned by Township Assessors.	Product Per Acre Estimated from Threshers' Re- turns.	Bushels.	Bushels.	Quality Com- pared With an Average.	Prospect Com- pared With an Average.		Date of Cutting, Days After September 1st.	Probable Total Yield Com- pared With Last Year.	Prospect Com- pared With an Average.	Condition Com- pared With an Average.	Prospect Com- pared With Last Year.
						Per Cent.	Per Cent.					
Adams.....	1,765	12	21,180	97	63	88	12	38	55	63	23	
Brown.....	7,147	13	92,911	97	66	73	18	46	58	80	43	
Butler.....	2,696	17	45,832	96	89	44	14	34	34	88	55	
Clark.....	3,763	14	52,682	97	68	85	21	34	70	68	97	
Clermont.....	3,977	13	51,701	97	74	72	21	43	64	70	47	
Clermont.....	4,339	20	86,780	92	89	85	19	31	70	77	43	
Payette.....	1,320	21	27,720	98	91	87	13	41		66	47	
Franklin.....	2,307	17	39,219	96	82	93	17	44		67	33	
Greene.....	5,650	13	73,450	89	97	83	10	37	70	74	89	
Hamilton.....	877	14	12,278	94	84	82	16	42	57	78	63	
Highland.....	4,102	13	53,326	86	78	89	13	43	59	65	44	
Madison.....	1,580	20	31,000	96	84	78	17	48		81	31	
Miami.....	2,738	18	43,808	93	80	67	15	58		66	56	
Montgomery.....	3,451	19	65,599	91	73	74	17	39	68	81	54	
Pickaway.....	1,036	22	22,792	98	79	73	18	37	63	78	46	
Pike.....	1,130	14	1,820	88	61	86	18	42	81	100	23	
Preble.....	4,268	19	81,092	100	96	41	24	57		75	31	
Rock.....	2,361	17	40,137	98	87	81	19	42		70	41	
Scioto.....	2,188	16	3,008	100	62	93	16	45	69	64	24	
Warren.....	4,422	13	57,486	94	87	71	13	41	83	86	63	
Averages.....	58,087	15	903,791	95	80	77	Sept. 17	42	67	76	47	
Totals.....												

STATE AVERAGES AND TOTALS.

Averages.....	16	95	75	50	69	79	33
Totals.....	185,473	2,971,078					

Official Report

OF THE

Ohio Agricultural Commission

ON THE

Condition of Crops, November 1, 1913

The following report is computed from returns received from the official correspondents of the Department:

WHEAT—Area sown last fall returned by township assessors_____	1,616,179 acres.
“ —Sown this fall compared with last year_____	101 per cent.
“ —Estimated area seeded for harvest of 1914_____	1,635,185 acres.
“ —Condition compared with an average_____	101 per cent.
“ —Average date of seeding_____	September 23.
ALFALFA—Area in 1912 returned by township assessors_____	27,699 acres.
“ —Area compared with last year_____	104 per cent.
“ —Estimated area in 1913_____	28,777 acres.
“ —Total tons produced per acre from all cuttings_____	3 tons.
“ —Total estimated product for 1913_____	86,124 tons.
“ —Number of cuttings this year_____	3
RYE—Area sown last fall returned by township assessors_____	185,473 acres.
“ —Sown this fall compared with last year_____	86 per cent.
“ —Estimated area seeded for the harvest of 1914_____	158,713 acres.
“ —Condition compared with an average_____	99 per cent.
SUGAR BEETS—Estimated area sown for 1912, as returned by township assessors_____	23,826 acres.
“ “ —Estimated area for 1913_____	22,024 acres.
“ “ —Total estimated production for 1913_____	223,099 tons.
“ “ —Total yield as compared with 1912_____	90 per cent.
CORN—Prospect compared with an average_____	84 per cent.
BUCKWHEAT—Prospect compared with an average_____	80 per cent.
CLOVER SEED—Prospect compared with an average_____	95 per cent.
POTATOES—Area planted returned by township assessors_____	103,302 acres.
“ —Average production per acre_____	69 bushels.
“ —Total estimated production for 1913_____	7,157,011 bushels.
“ —Affected by rot_____	2 per cent.
HOGS—Condition compared with an average_____	93 per cent.
“ —Number to be fattened compared with 1912_____	86 per cent.

STATE AVERAGE PRICES.

	<i>Per Bushel.</i>
Wheat -----	\$0 89
Corn -----	68
Barley -----	62
Oats -----	41
Rye -----	71
Potatoes -----	91
	<i>Per Ton.</i>
Hay -----	\$12 80
Alfalfa -----	14 65
Sugar Beets -----	5 16

The estimated acreage sown for the wheat harvest of 1914 is approximately 30,000 acres more than was harvested this year. Average date of sowing was a little earlier than last year, and favorable weather makes condition a little above the average.

Alfalfa production shows average of 3 tons per acre, the same as last year, but an increase of about 2,000 acres over last year.

The area seeded to rye this fall is estimated at about 25,000 acres less than last year.

Corn prospects are not flattering. The estimated acreage planted is 3,044,078 acres. From present prospects this will produce approximately 90,000,000 bushels as against 127,700,000 bushels last year.

The 1913 yield of sugar beets is estimated at 90 per cent. as compared with last year, due to dry weather during July and August. The acreage was also about 1,800 acres less.

Potato acreage was about the same at last year. The average estimated production per acre is about 50 bushels less than last year. The total estimated production for 1913 is 7,157,011 bushels as against 10,579,700 last year.

The condition of hogs is about the same as last year. Number fattening for market is 86 per cent. as compared with 1912.

NORTHEAST SECTION.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE AREA OF WHEAT, RYE AND SUGAR BEETS, AREA AND PRODUCTION OF ALFALFA, SUGAR BEETS AND POTATOES AND THE CONDITION OF OTHER CROPS, NOVEMBER 1, 1913.

Counties.	Wheat.						Alfalfa.					
	Reports Received.	Area Sown Last Fall as Returned by Assessors.	Per Cent. Compared With Last Year.	Estimated Area Seeded for the Harvest of 1914.	Condition Compared With an Average.	When Sown Days After Sept. 15.	Area in 1912 as Returned by Assessors.	Area Compared With Last Year.	Estimated Area in 1913.	Total Tons Produced per Acre from All Cuttings.	Tons. Total Estimated for 1913.	Number of Cuttings This Year.
	Number.	Acres.	Per Cent.	Acres.	Per Cent.	Days.	Acres.	Per Cent.	Acres.	Tons.	Tons.	Number.
Ashland.....	10	22,046	103	22,707	111	8	14	85	12	250	30	2
Ashtabula.....	15	6,596	95	6,266	100	4	5	100	5	3.25	16	4
Carroll.....	8	15,982	103	16,461	106	13	30	105	32	2.75	88	3
Columbiana.....	11	19,603	101	19,799	115	10	105	101	106	2.50	265	2
Coshocton.....	15	21,453	98	21,029	100	13	121	99	120	3.00	360	2
Cuyahoga.....	10	4,649	94	4,370	103	6	18	93	17	3.00	51	2
Erie.....	4	12,388	106	13,131	103	5	249	108	232	4.50	1,044	3
Geauga.....	11	4,014	99	3,974	104	9	26	105	27	3.75	101	2
Harrison.....	12	9,826	103	10,121	111	8	366	119	436	2.08	907	3
Holmes.....	6	25,807	101	26,065	103	11	72	101	73	250	133	2
Huron.....	11	28,175	101	28,457	104	11	191	113	216	3.00	648	3
Jefferson.....	16	9,974	100	9,874	104	11	203	98	199	3.80	597	2
Knox.....	17	24,578	99	24,332	101	12	255	94	240	3.80	912	3
Lake.....	5	2,235	90	2,003	100	11	55	106	60	2.50	150	2
Lorain.....	14	19,070	106	20,214	107	8	9	103	9	2.50	23	2
Mahoning.....	13	11,598	103	11,944	111	11	54	110	59	3.00	236	3
Medina.....	13	20,870	97	20,244	102	5	51	108	55	4.00	165	3
Portage.....	15	18,018	98	17,658	103	5	28	105	29	3.33	97	3
Richland.....	13	24,611	107	26,334	108	0	22	100	22	1.50	33	3
Stark.....	15	37,586	97	36,458	105	6	152	108	164	3.00	492	3
Summit.....	18	17,356	101	17,530	109	6	45	80	36	2.00	72	2
Tuscarawas.....	17	8,405	100	8,405	103	4	47	104	49	3.00	147	3
Trumbull.....	15	24,082	103	24,804	112	6	51	103	53	3.50	186	2
Wayne.....	10	41,284	104	42,935	104	6	51	103	53	3.50	186	2
Averages.....	292	430,199	101	436,015	105	Sept. 23	2,169	104	2,251	3.02	6,803	3
Totals.....												

STATE AVERAGES AND TOTALS.

Averages.....	979	1,616,179	101	1,635,185	101	Sept. 27	27,999	104	28,777	3.00	86,124	8
Totals.....												

NORTHEAST SECTION—Continued.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE AREA OF WHEAT, RYE AND SUGAR BEETS, AREA AND PRODUCTION OF ALFALFA, SUGAR BEETS AND POTATOES AND THE CONDITION OF OTHER CROPS, NOVEMBER 1, 1913.

Counties.	Rye.			Sugar Beets.						Corn.		Buck-wheat.		Clover Seed.	
	Area Sown Last Fall as Returned by Township As-essor.	Sown This Fall Compared With Last Year.	Estimated Area Seeded for the Harvest of 1914.	Condition Compared With an Average.	Area Sown in 1912 as Returned by Township As-essors.	Area Compared With Last Year.	Total Estimated Area for 1913.	Average Tons per Acre.	Total Estimated Product for 1913.	Prospect Compared With an Average.	Per Cent.	Prospect Compared With an Average.	Per Cent.	Prospect Compared With an Average.	Per Cent.
	Acres.	Per Cent.	Acres.	Per Cent.	Acres.	Per Cent.	Acres.	Tons.	Tons.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Ashland	3,181	81	2,590	103						95	87	70	78	87	87
Ashtabula	932	94	923	99						84	78	70	78	78	78
Carroll	438	105	464	103						84	88	88	88	81	81
Columbiana	545	103	551	102						83	88	84	88	81	81
Coshocton	1,501	81	1,421	82						83	104	104	104	112	112
Cuyahoga	1,507	82	1,512	99						83	105	105	105	105	105
Erie	1,073	89	959	100						83	103	103	103	103	103
Geauga	355	94	354	101						87	81	81	81	81	81
Harrison	103	99	763	103						78	77	77	77	77	77
Holmes	837	90	763	89						83	86	86	86	86	86
Huron	1,260	76	933	100						80	80	80	80	80	80
Jefferson	867	96	832	100						102	87	87	87	87	87
Knox	3,084	82	3,021	99						87	80	80	80	80	80
Lake	389	100	389	98						80	87	87	87	87	87
Lorain	572	93	532	100						81	81	81	81	81	81
Mahoning	431	99	437	101						82	79	79	79	79	79
Medina	1,068	105	1,119	102						82	80	80	80	80	80
Portage	497	97	482	98						72	83	83	83	83	83
Richland	4,032	74	3,391	104						91	83	83	83	83	83
Sark	443	97	429	96						68	70	70	70	70	70
Summit	465	83	386	97						82	85	85	85	85	85
Trembail	519	109	666	113						72	87	87	87	87	87
Tuscarawas	1,111	100	1,111	104						76	76	76	76	76	76
Wayne	1,854	94	803	105						88	88	88	88	88	88
Averages	26,665	87	23,293	101						82	85	85	85	85	85
Totals															

STATE AVERAGES AND TOTALS.

Averages	86	99	98	10	84	80	95
Totals	185,473	158,713	23,836	22,094	233,099		

NORTHEAST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE AREA OF WHEAT, RYE AND SUGAR BEETS, AREA AND PRODUCTION OF ALFALFA, SUGAR BEETS AND POTATOES AND THE CONDITION OF OTHER CROPS, NOVEMBER 1, 1913.

Counties.	Potatoes.				Hogs.		Wheat.	Corn.	Barley.	Oats.	Rye.	Potatoes.	Hay.	Alfalfa.	Sugar Beets.
	Area Planted as Reservoirs.	Average Product per Acre.	Total Estimated Product for 1913.	Affected by Rot.	Condition Compared With an Average.	Number to be Fattened Compared With 1912.									
							Acres.	Bush's.	Bushels.	Per Cent.	Per Cent.	Per Cent.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Ton.	Price per Ton.
Ashland.....	883	85	75,055	2	99	87	\$0 89	\$0 65	\$0 65	\$0 40	\$0 63	\$0 75	\$12 10		
Ashtabula.....	3,496	61	213,268	1	98	91	98	74	74	43	73	82	11 45		
Carroll.....	808	64	32,512	4	99	86	89	69	75	46	72	88	13 75	\$16 00	
Columbiana.....	2,807	86	198,492	0	100	97	92	71		49	85	90	14 20	20 00	
Coelection.....	1,113	84	71,323	3	108	94	85	73		42	79	93	11 70	15 00	
Cuyahoga.....	5,919	70	411,330	3	100	86	92	75	60		76	80	17 10		
Erie.....	3,434	70	237,380	4	91	80	89	73	65	39	62	75	13 25	14 00	
Geauga.....	3,087	90	277,350	2	98	81	92	66		44	72	73	11 30	20 00	
Holmes.....	57	47	2,579	1	98	90	94	71		49	90	1 03	12 64	14 34	
Harrison.....	699	75	54,632	4	99	93	87	72	80		75	70	19 90		
Huron.....	1,373	87	162,951	1	96	92	87	68	60	50	67	71	12 87	10 00	
Jefferson.....	453	86	59,445	2	98	93	91	78	70	51	89	1 08	14 44	20 25	
Knox.....	1,687	81	53,865	2	99	91	87	62	80	44	71	84	12 00	16 50	
Lake.....	1,709	86	143,289	1	100	82	96	73	68	43	72	83	14 00	20 00	
Lorain.....	2,849	86	194,634	1	96	92	90	68		44	71	84	12 00		
Madison.....	2,616	86	216,376	2	99	88	93	74	80		72	83	14 00		
Medina.....	2,825	76	222,300	1	96	87	89	70		40	74	80	14 00		
Portage.....	5,810	78	453,180	0	96	85	89	66		44	78	67	12 87		
Richland.....	2,433	72	175,176	3	99	84	88	67	66	41	61	71	12 42	10 00	
Stark.....	3,438	80	275,040	1	95	83	87	69		43	70	77	14 00	18 00	
Summit.....	3,397	78	264,966	1	92	86	88	63	55	45	75	90	16 00	22 00	
Trumbull.....	3,165	61	193,065	1	97	86	94	78		44	86	88	13 30	23 00	
Tuscarawas.....	1,453	73	106,434	2	96	89	89	73	60	44	78	95	13 35	13 00	
Wayne.....	3,257	117	381,069	1	102	90	87	63	74	38	77	65	12 70	15 00	
Averages.....	57,613	77	4,448,988	2	98	89	\$0 90	\$0 70	\$0 67	\$0 43	\$0 77	\$0 82	\$13 32	\$16 22	
Totals.....															

STATE AVERAGES AND TOTALS.

Averages.....	69	2	93	86	\$0 89	\$0 68	\$0 62	\$0 41	\$0 71	\$0 91	\$12 80	\$14 64	\$5 16
Totals.....	103,302	7,157,011											

SOUTHEAST SECTION.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE AREA OF WHEAT, RYE AND SUGAR BEETS, AREA AND PRODUCTION OF ALFALFA, SUGAR BEETS AND POTATOES AND THE CONDITION OF OTHER CROPS, NOVEMBER 1, 1913.

Counties.	Wheat.				Alfalfa.						
	Area Sown Last Fall as Reported by Assessors.	Sown This Fall Compared With Last Year.	Estimated Area Seeded for the Harvest of 1914.	Condition Compared With an Average.	When Sown Days After Sept. 15.	Area in 1912 as Returned by Township Assessors.	Area Compared With Last Year.	Estimated Area in 1913.	Total Tons Produced per Acre From All Cuttings.	Total Estimated Product for 1913.	Number of Cuttings This Year.
	Number.	Per Cent.	Acres.	Per Cent.	Days.	Acres.	Per Cent.	Acres.	Tons.	Tons.	Number.
Athens.....	9		6,903	93	20	1,144	97	1,110	3.10	3,441	3
Belmont.....	18		13,276	92	15	271	106	287	3.60	1,033	3
Fairfield.....	15		46,950	96	17	68	100	68	3.00	204	3
Gallia.....	6		7,827	89	18	29	100	28	4.00	104	3
Guernsey.....	14		11,530	104	13	100	130	130	3.00	390	3
Hocking.....	6		10,087	94	17	42	100	42	2.50	105	3
Jackson.....	6		7,113	100	27	10	85	9	2.00	18	3
Lawrence.....	11		1,868	96	23	12	84	10	5.00	50	3
Licking.....	20		29,852	100	15	193	96	185	2.75	508	3
Meigs.....	12		10,015	91	21	26	98	25	3.00	75	3
Monroe.....	11		11,714	87	17	27	75	22	4.50	99	3
Morgan.....	11		10,661	99	17	268	118	316	2.65	837	3
Muskingum.....	17		20,772	97	14	266	125	333	3.25	1,082	3
Noble.....	13		10,444	95	16	181	108	195	3.50	682	3
Perry.....	11		14,066	98	20	4	100	4	3.50	106	3
Vinton.....	9		6,335	97	17	262	104	272	3.70	1,006	3
Washington.....	12		17,032	94	17	262	104	272	3.70	1,006	3
Averages.....	200		236,495	96	Oct. 3	2,903	105	3,034	3.17	9,634	3
Totals.....											

STATE AVERAGES AND TOTALS.

Averages.....	979	1,616,179	101	1,635,185	101	Sept. 27	27,699	104	28,777	3.00	86,124	8
Totals.....												

SOUTHEAST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE AREA OF WHEAT, RYE AND SUGAR BEETS, AREA AND PRODUCTION OF ALFALFA, SUGAR BEETS AND POTATOES AND THE CONDITION OF OTHER CROPS, NOVEMBER 1, 1913.

Counties.	Rye.				Sugar Beets.				Corn.	Buck-wheat.	Clover Seed.
	Area Sown Last Season.	Sown This Fall Compared With Last Year.	Estimated Area Seeded for the Harvest of 1914.	Condition Compared With Average.	Area Sown in 1912 as Returned by Township Assessors.	Area Compared With Last Year.	Total Estimated Area for 1913.	Average Tons per Acre.	Total Estimated Product for 1913.	Prospect Compared With Average.	Prospect Compared With Average.
	Acres.	Per Cent.	Acres.	Per Cent.	Acres.	Per Cent.	Acres.	Tons.	Tons.	Per Cent.	Per Cent.
Athens.....	134	85	114	100						91	76
Belmont.....	1,587	118	1,373	100						93	97
Fairfield.....	950	93	884	98						86	85
Gallia.....	363	119	432	89						57	86
Guernsey.....	799	95	759	100						82	99
Hocking.....	196	92	180	95						83	99
Jackson.....	232	75	174	90						74	78
Lawrence.....	62	104	64	103						65	87
Licking.....	6,209	93	5,774	97						60	90
Meigs.....	283	99	280	100						94	89
Monroe.....	1,140	108	1,231	98						84	81
Morgan.....	149	89	133	97						100	84
Muskingum.....	673	97	653	95						86	76
Noble.....	143	93	133	98						89	103
Perry.....	404	92	372	96						78	102
Vinton.....	90	102	92	97						89	80
Washington.....	347	94	326	99						86	85
Averages.....		97		97						85	98
Totals.....	13,861		13,474							82	97

STATE AVERAGES AND TOTALS.

Averages.....	86	99	93	10	84	95
Totals.....	185,473	158,713	23,526	22,024	223,099	80

SOUTHEAST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE AREA OF WHEAT, RYE AND SUGAR BEETS, AREA AND PRODUCTION OF ALFALFA, SUGAR BEETS AND POTATOES AND THE CONDITION OF OTHER CROPS, NOVEMBER 1, 1913.

Counties.	Potatoes.				Hogs.		Wheat.	Corn.	Barley.	Oats.	Rye.	Potatoes.	Hay.	Alfalfa.	Sugar Beets.	
	Area Planted as Township As- sessors.	Average Product per Acre.	Total Estimated Product for 1913.	Affected by Rot.	Condition Com- pared With an Average.											Number to be Fattened Com- pared With 1912.
					Per Cent.	Per Cent.										
Athens.....	420	47	19,740	1	100	97	\$0 82	\$0 60	\$0 90	\$0 41	\$0 87	\$0 94	\$14 00	\$14 00		
Belmont.....	594	68	39,712	2	100	94	93	80	80	45	95	1 00	15 00	17 00		
Fairfield.....	587	56	32,872	4	88	79	86	61	61	43	68	1 98	13 00			
Gallia.....	86	31	2,666	1	95	75	92	77	77	50	89	79	14 00	14 50		
Guernsey.....	208	45	9,360	5	94	87	93	74	74	48	86	1 00	12 39	18 50		
Hocking.....	450	88	39,600	4	97	92	87	63	63	45	91	1 07	12 20	10 00		
Jackson.....	101	58	5,858	2	87	87	91	69	69	50	84	1 09	14 00	16 00		
Lawrence.....	932	44	42,196	3	98	82	94	67	67	38	98	1 06	17 10	12 00		
Licking.....	922	74	68,968	2	96	81	85	63	63	48	72	1 03	13 15	16 50		
Meigs.....	551	40	22,040	3	99	98	93	71	71	50	92	1 05	13 35	16 50		
Monroe.....	840	80	67,200	3	99	95	101	80	80	48	89	1 03	13 35	16 50		
Morgan.....	191	40	7,640	3	105	93	96	75	75	46	81	1 06	12 25	16 50		
Muskingum.....	626	56	35,224	5	98	88	88	68	68	46	86	1 00	13 68	16 50		
Noble.....	565	55	31,075	8	97	89	92	75	75	45	83	1 03	13 54	14 71		
Perry.....	340	53	18,020	2	99	94	87	67	67	44	75	1 06	13 70			
Vinton.....	267	40	10,680	3	100	91	88	65	65	46	86	1 05	12 66			
Washington.....	1,239	62	76,818	5	100	91	90	73	73	46	90	1 92	15 00	16 50		
Averages.....	8,949	59	529,669	3	97	90	\$0 91	\$0 70	\$0 73	\$0 46	\$0 85	\$0 99	\$13 62	\$15 19		
Totals.....																

STATE AVERAGES AND TOTALS.

Averages.....	.....	69	7,157,011	2	93	86	\$0 88	\$0 68	\$0 62	\$0 41	\$0 71	\$0 91	\$12 80	\$14 64	\$5 16
Totals.....	103,302	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NORTHWEST SECTION.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE AREA OF WHEAT, RYE AND SUGAR BEETS, AREA AND PRODUCTION OF ALFALFA, SUGAR BEETS AND POTATOES AND THE CONDITION OF OTHER CROPS, NOVEMBER 1, 1913.

Counties.	Wheat.					Alfalfa.					Number of Cut-tings This Year.	
	Reports Received.	Area Sown Last Turned by Assessors.	Sown This Fall Compared With Last Year.	Estimated Area Seeded for the Harvest of 1914.	Condition Compared With an Average.	Days.	Acres.	Per Cent.	Area Compared With Last Year.	Estimated Area in 1913.		Total Tons Produced per Acre From All Cut-tings.	Total Estimated Product for 1913.
	Number.	Acres.	Per Cent.	Acres.	Per Cent.						Tons.	Tons.
Allen.....	14	7,835	129	10,107	105	10	222	104	231	347	802	3
Auglaize.....	10	17,737	127	22,526	105	11	202	105	105	791	3,627	3
Champaign.....	8	20,729	99	24,792	98	11	1,073	104	1,116	3,253	3,627	3
Crawford.....	16	24,070	103	32,166	101	7	31	110	113	320	627	3
Darke.....	14	30,834	105	32,166	98	11	223	88	196	360	705	3
Defiance.....	12	11,555	116	13,404	101	6	146	134	196	360	705	3
Delaware.....	13	15,108	100	15,108	100	13	204	110	323	270	872	3
Eaton.....	7	10,034	91	9,131	101	6	441	132	582	325	1,892	3
Hancock.....	14	22,029	111	24,452	101	12	110	108	119	375	446	3
Harbin.....	6	5,356	103	5,517	101	8	175	113	198	320	634	3
Henry.....	10	12,278	104	12,769	110	5	95	115	109	280	304	3
Lucas.....	12	7,156	108	7,728	99	10	1,692	102	1,726	275	4,745	3
Logan.....	9	4,394	101	4,438	103	5	509	102	519	300	1,557	3
Marion.....	8	8,923	92	8,117	93	8	75	87	65	380	215	3
Mercer.....	11	17,820	109	19,424	97	10	203	106	215	400	645	3
Morrow.....	14	12,645	104	13,151	102	9	109	109	108	400	432	3
Ottawa.....	6	5,247	100	5,247	102	10	401	115	401	310	1,423	3
Paulding.....	10	3,423	107	3,560	97	12	68	108	68	300	204	3
Putnam.....	12	10,369	117	12,132	103	10	52	109	57	333	190	3
Sandusky.....	8	19,273	114	21,974	89	9	115	122	122	333	406	3
Seneca.....	15	45,873	101	46,332	102	12	278	108	300	325	975	3
Shelby.....	11	18,762	109	20,483	100	6	171	100	171	260	445	3
Union.....	14	10,857	101	10,693	101	10	649	140	909	300	2,727	3
Van Wert.....	8	4,013	111	4,454	98	7	73	117	85	312	285	3
Williams.....	10	16,478	108	17,796	113	4	548	124	690	375	2,650	3
Wood.....	14	10,010	118	11,812	100	9	512	101	517	300	1,551	3
Wyandot.....	10	16,283	105	17,097	101	9	269	103	277	300	1,831	3
Averages.....	296	388,553	107	414,931	101	Sept. 24	8,736	110	9,596	3.12	29,983	3
Totals.....												

NORTHWEST SECTION—Continued.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE AREA OF WHEAT, RYE AND SUGAR BEETS, AREA AND PRODUCTION OF ALFALFA, SUGAR BEETS AND POTATOES AND THE CONDITION OF OTHER CROPS, NOVEMBER 1, 1913.

Counties.	Rye.			Sugar Beets.					Corn.		Buck-wheat.		Clover Seed.	
	Area Sown Last season. As-Returned by Township Assessors.	Sown This Fall Compared With Last Year.	Estimated Area Seeded for the Harvest of 1914.	Acres.	Per Cent.	Condition Compared With an Average.	Area Sown in 1912 as Re-turned by Township As-sessors.	Area Compared With Last Year.	Total Estimated Area for 1913.	Average Tons per Acre.	Total Estimated Product for 1913.	Prospect Compared With an Average.	Per Cent.	Prospect Compared With an Average.	Per Cent.
Allen.....	8,125	87	7,069	103	103	121	75	91	12	1,092	102	100	97	
Auglaize.....	6,419	80	5,135	95	95	388	72	243	9	2,187	94	94	106	
Champaign.....	3,567	87	3,103	93	93						103	90	96	
Crawford.....	1,465	73	1,069	99	99	25					86	75	91	
Darke.....	9,680	75	7,258	87	87	67	150	100	5	500	86	75	116	
Defiance.....	1,769	90	1,592	91	91	2,046	85	2,249	9	20,241	89	90	96	
Delaware.....	3,587	92	3,300	102	102	64					81	80	75	
Fulton.....	1,063	100	1,063	100	100	800	113	904	10	9,040	93	80	106	
Hancock.....	6,069	89	5,401	100	100	618	61	315	10	3,150	100	90	99	
Hardin.....	5,087	105	5,341	101	101	65					89	93	85	
Henry.....	1,137	99	1,128	109	109	1,143	115	1,314	11	14,454	89	75	83	
Logan.....	4,902	84	4,118	96	96	2,111	88	1,858	12	22,296	88	80	95	
Lucas.....	981	96	942	103	103	1,451	114	1,654	10	16,540	103	80	107	
Marion.....	1,602	83	1,410	96	96	1,451	114	1,654	10	16,540	103	80	107	
Mercer.....	4,838	77	4,016	99	99						101	100	103	
Morrow.....	8,118	94	2,400	99	99	868	113	981	10	9,810	98	86	79	
Ottawa.....	442	94	411	99	99	4,043	93	3,760	9	33,840	76	83	95	
Paulding.....	1,102	91	1,113	99	99	2,986	80	2,389	9	28,668	90	82	84	
Putnam.....	2,232	91	2,232	94	94	271	93	252	12	28,668	90	82	84	
Sandusky.....	3,560	85	3,028	98	98	34					93	92	102	
Seneca.....	1,375	96	1,320	101	101						92	63	117	
Shelby.....	1,811	93	1,684	98	98						92	63	117	
Union.....	4,386	97	4,254	112	112						92	63	117	
Van Wert.....	3,819	91	3,475	96	96	2,123	78	1,656	11	18,216	99	96	80	
Williams.....	1,040	93	967	114	114	3,415	138	741	12	8,892	81	87	101	
Wood.....	1,293	98	1,267	101	101		103	3,517	9	31,653	76	72	83	
Wyandot.....	2,179	83	1,809	102	102						98	95	99	
Averages.....	86,860	87	75,911	99	99	23,826	93	22,024	10	223,099	90	85	97	
Totals.....														

NORTHWEST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE AREA OF WHEAT, RYE AND SUGAR BEETS, AREA AND PRODUCTION OF ALFALFA, SUGAR BEETS AND POTATOES AND THE CONDITION OF OTHER CROPS, NOVEMBER 1, 1913.

Counties.	Potatoes.			Hogs.		Wheat.	Corn.	Barley.	Oats.	Rye.	Potatoes.	Hay.	Alfalfa.	Sugar Beets.
	Area Planted as seasons.	Average Product per Acre.	Total Estimated Product for 1913.	Affected by Rot.	Condition Com- pared With an Average.	Number to be pared With 1912.								
	# Acres.	Bush's.	Bushels.	Per Cent.	Per Cent.	Per Cent.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Ton.	Price per Ton.	Price per Ton.
Allen.....	674	71	47,854	1	73	74	\$0 87	\$0 62	\$0 38	\$0 47	\$0 84	\$11 65	\$14 17	\$5 00
Auglaize.....	1,023	61	62,403	1	84	75	75	58	37	58	93	11 56	13 00	5 00
Champaign.....	280	68	19,040	2	83	76	76	58	35	60	99	12 07	14 73	5 00
Crawford.....	1,472	63	92,736	2	88	83	83	65	36	58	81	12 50	16 00	5 50
Darke.....	1,063	62	65,906	1	93	82	86	53	37	60	78	12 00	16 50	5 40
Defiance.....	687	51	35,037	1	91	85	87	48	36	57	78	12 00	14 86	5 40
Delaware.....	456	67	30,552	1	97	86	87	72	37	68	94	11 85	15 00	4 65
Fulton.....	754	84	63,336	2	96	86	86	52	37	61	82	11 07	12 00	4 65
Hancock.....	689	63	43,407	1	70	79	88	41	37	56	90	10 94	13 86	5 00
Hardin.....	499	68	33,932	4	69	76	91	40	37	59	94	11 25	13 96	5 00
Henry.....	634	61	38,674	3	89	82	88	60	37	56	79	11 11	13 00	5 00
Logan.....	305	44	13,420	3	97	85	87	55	39	61	98	11 25	12 91	5 00
Lucas.....	3,371	78	262,938	2	74	73	89	78	39	66	80	11 75	13 15	5 35
Marion.....	601	73	46,378	2	76	78	83	63	37	58	89	10 10	11 75	5 00
Mercer.....	455	63	28,665	2	88	86	86	70	40	57	90	11 35	12 35	5 00
Morrow.....	1,014	69	69,966	2	98	86	86	58	35	63	77	11 00	11 60	5 00
Ottawa.....	658	55	36,190	2	100	96	88	64	36	60	85	11 40	13 00	5 16
Paulding.....	197	73	14,381	0	100	88	88	56	36	58	86	11 13	13 25	5 07
Putnam.....	740	60	46,140	3	83	92	88	51	36	57	77	10 75	14 17	5 04
Sandusky.....	2,122	72	152,784	3	75	78	87	69	38	63	73	12 00	13 33	5 00
Seneca.....	1,831	80	146,480	2	84	76	83	52	37	58	79	12 00	13 00	5 00
Shelby.....	694	70	48,580	1	94	85	86	70	36	57	99	11 20	14 00	5 00
Union.....	124	42	5,208	2	95	82	87	60	38	64	98	12 13	16 00	5 00
Van Wert.....	884	76	67,184	1	95	92	86	73	37	56	88	12 13	13 25	5 33
Williams.....	654	65	42,510	4	98	85	85	65	37	58	82	11 90	13 25	5 33
Wood.....	1,009	57	57,342	3	80	72	89	65	38	65	87	10 82	14 17	5 00
Wyandot.....	429	43	18,447	2	67	86	86	47	37	63	95	10 80	14 00	5 00
Averages.....	23,345	68	1,589,990	2	87	83	\$0 80	\$0 56	\$0 37	\$0 59	\$0 87	\$11 39	\$13 81	\$5 16
Totals.....														

SOUTHWEST SECTION.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE AREA OF WHEAT, RYE AND SUGAR BEETS, AREA AND PRODUCTION OF ALFALFA, SUGAR BEETS AND POTATOES AND THE CONDITION OF OTHER CROPS, NOVEMBER 1, 1918.

Counties.	Wheat.						Alfalfa.					
	Area Sown Last Fall as Returned by Assessors.	Sown This Year Compared With Last Year.	Estimated Area Seeded for the Harvest of 1914.	Condition Compared With an Average.	When Sown Days After Sept. 15.	Area in 1912 as Returned by Township Assessors.	Area Compared With Last Year.	Estimated Area in 1918.	Total Tons Produced per Acre From All Cuttings.	Tons.	Total Estimated Product for 1918.	Number of Cuttings This Year.
Reports Received.	Acres.	Per Cent.	Acres.	Per Cent.	Days.	Acres.	Per Cent.	Acres.	Tons.	Tons.	Tons.	Number.
Adams.....	11	97	12,524	105	10	153	92	141	2.71	382	382	3
Brown.....	15	103	16,310	99	17	109	95	104	2.37	246	246	3
Butler.....	9	97	40,426	99	13	1,495	101	1,510	3.31	4,998	4,998	4
Clark.....	7	101	21,418	104	9	616	80	493	2.66	1,311	1,311	3
Clermont.....	9	97	11,555	93	22	921	102	939	2.00	1,878	1,878	3
Clinton.....	10	98	33,725	101	13	145	100	145	2.57	373	373	3
Fayette.....	3	98	34,937	97	12	160	100	160	4.00	640	640	3
Franklin.....	12	103	31,572	105	16	697	110	767	3.15	2,416	2,416	3
Greene.....	8	101	34,905	104	14	978	102	998	2.50	2,495	2,495	3
Hamilton.....	9	108	12,102	106	11	2,153	98	2,110	2.78	5,866	5,866	3
Highland.....	13	100	35,076	29	15	479	98	469	2.60	1,219	1,219	3
Madison.....	6	102	21,790	101	15	520	103	536	3.00	1,608	1,608	3
Miami.....	10	102	28,921	112	8	321	112	360	2.79	1,004	1,004	3
Montgomery.....	11	99	26,714	97	12	1,733	102	1,768	3.50	6,188	6,188	3
Pickaway.....	11	99	61,484	100	17	264	99	261	2.60	678	678	3
Pike.....	8	94	12,533	104	22	158	96	152	3.50	532	532	3
Preble.....	7	101	37,821	104	11	760	94	705	8.00	2,115	2,115	3
Rosa.....	11	97	46,589	94	19	1,133	101	1,144	8.32	3,798	3,798	3
Scioto.....	13	93	11,661	94	23	257	83	226	8.16	714	714	3
Warren.....	8	105	23,284	114	13	849	107	908	2.69	2,443	2,443	3
Averages.....	191	99	556,347	101	Sept. 30	13,891	100	13,896	3.00	40,904	40,904	3
Totals.....												

STATE AVERAGES AND TOTALS.

Averages.....	970	1,616,176	101	101	Sept. 27	27,699	104	28,777	3.00	86,124	86,124	3
Totals.....												

SOUTHWEST SECTION—Continued.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE AREA OF WHEAT, RYE AND SUGAR BEETS, AREA AND PRODUCTION OF ALFALFA, SUGAR BEETS AND POTATOES AND THE CONDITION OF OTHER CROPS, NOVEMBER 1, 1913.

Counties.	Rye.				Sugar Beets.						Corn.		Buck-wheat.		Clover Seed.	
	Area Sown Last Fall as Returned by Township Assessors.	Sown This Fall Compared With Last Year.	Estimated Area Harvested for 1914.	Condition Compared With Average.	Area Sown in 1912 as Returned by Township Assessors.	Area Compared With Last Year.	Total Estimated Area for 1913.	Average Tons per Acre.	Total Estimated Product for 1913.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Adams	1,765	84	1,482	97							68				81	
Brown	7,147	103	7,361	100							67				76	
Butler	2,896	96	2,688	100							80				116	
Clark	3,763	78	2,935	100							85				78	
Clermont	3,977	94	3,738	93							72				124	
Clinton	4,339	87	3,775	101							90				99	
Fayette	1,320	95	1,254	97							87				93	
Franklin	2,307	96	2,215	101							96				99	
Greene	5,650	84	4,746	97							84				167	
Hamilton	877	99	868	107							84				89	
Highland	4,102	100	4,102	95							90				90	
Madison	1,550	100	1,550	106							98				88	
Miami	2,738	73	1,999	99							79				104	
Montgomery	3,451	72	2,485	99							68				95	
Pickaway	1,036	96	995	103							80				82	
Pike	130	92	120	97							69				91	
Poble	2,689	63	2,689	104							99				96	
Ross	2,361	91	2,149	99							74				151	
Scioto	188	99	186	97							69				86	
Warren	4,422	99	4,378	102							91				129	
Averages Totals	58,067	89	51,615	99							81				79	100

STATE AVERAGES AND TOTALS.

Averages	86	99	158,713	99	23,826	93	22,094	10	223,099	84	80	95
Totals	185,473											

SOUTHWEST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE AREA OF WHEAT, RYE AND SUGAR BEETS, AREA AND PRODUCTION OF ALFALFA, SUGAR BEETS AND POTATOES AND THE CONDITION OF OTHER CROPS, NOVEMBER 1, 1913.

Counties.	Potatoes.				Hogs.		Wheat.	Corn.	Barley.	Oats.	Rye.	Potatoes.	Hay.	Alfalfa.	Sugar Beets.
	Area Planted as Returned by Township Assessors.	Average Product per Acre.	Total Estimated Product for 1913.	Affected by Rot.	Condition Compared With an Average.	Number to be Fattened Compared With 1912.									
							Acres.	Bushels.	Per Cent.	Per Cent.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.
Adams.....	168	40	6,720	7	92	72	\$0 89	\$0 65		\$0 40	\$0 74	\$1 19	\$12 90	\$13 65	
Brown.....	172	44	7,568	2	98	82	\$0 90	\$0 73		44	73	1 08	13 60	14 65	
Butler.....	925	41	37,925	2	82	77	\$0 86	67	\$0 78	43	64	1 05	14 55	15 35	
Clark.....	825	45	37,125	2	91	99	\$0 86	69		40	62	1 03	13 60	15 35	
Clermont.....	721	41	29,561	2	94	84	\$0 91	70		44	74	1 04	16 66	16 00	
Clinton.....	87	36	3,132	2	85	84	\$0 84	63		38	71	99	12 30	16 00	
Payette.....	3	77	231	0	73	78	\$0 86	60		35	71	1 07	9 50	12 50	
Franklin.....	1,463	53	77,539	4	94	92	\$0 90	63		40	63	1 09	13 00	12 85	
Greene.....	663	30	19,890	1	86	87	\$0 88	62		39	57	1 12	14 90	14 90	
Hamilton.....	3,702	43	159,186	8	99	85	\$0 94	71		39	69	97	17 89	15 75	
Highland.....	774	40	2,960	5	100	94	\$0 87	68		42	73	96	12 46	12 17	
Madison.....	105	63	6,615	0	89	76	\$0 87	65		36	52	98	11 00	12 17	
Miami.....	1,185	45	53,325	2	85	92	\$0 87	65		36	52	98	11 00	12 17	
Montgomery.....	810	31	25,110	2	98	86	\$0 89	66		32	58	95	15 00	14 40	
Pickaway.....	99	46	4,554	2	96	88	\$0 87	66	56	32	58	95	15 00	14 40	
Pike.....	376	42	14,792	4	90	71	\$0 86	59		37	68	97	11 75	13 50	
Preble.....	245	47	11,515	1	88	82	\$0 86	58		40	85	1 09	14 00	15 00	
Ross.....	539	41	22,099	2	100	76	\$0 85	66		38	60	93	14 00	12 00	
Scioto.....	997	55	54,835	1	95	76	\$0 88	59		38	70	1 01	12 00	12 75	
Shelby.....	236	58	13,688	5	97	80	\$0 90	67		48	75	1 06	15 99	16 00	
Warren.....							\$0 88	\$0 65		\$0 40	\$0 67	\$1 02	\$13 40	\$14 08	
Averages.....	13,395	44	588,364	3	91	85	\$0 88	\$0 65		\$0 40	\$0 67	\$1 02	\$13 40	\$14 08	
Totals.....															

STATE AVERAGES AND TOTALS.

Averages.....															
Totals.....	103,302	69	7,157,011	2	93	86	\$0 89	\$0 68	\$0 62	\$0 41	\$0 71	\$0 91	\$12 80	\$14 64	\$5 16

Official Report

OF THE

Ohio Agricultural Commission

ON THE

Condition of Crops, December 1, 1913

The following report is computed from returns received from the official correspondents of the Department:

WHEAT—Condition compared with an average.....	101 per cent.
“ —Amount of crop of 1913 sold as soon as threshed....	44 per cent.
“ —Damage by Hessian fly.....	3 per cent.
“ —Damaged by white grub.....	1 per cent.
CORN—Area as returned by township assessors.....	2,988,115 acres.
“ —Estimated average yield per acre.....	36 bushels.
“ —Total estimated production.....	108,864,120 bushels.
“ —Put into Silo.....	9 per cent.
“ —Date of cribbing.....	October 17.
CLOVER—Area sown in 1912 cut for seed.....	37 per cent.
“ —Average yield of seed per acre.....	1.41 bushels.
APPLES—Probable total yield compared with last year.....	37 per cent.
TOBACCO—Probable average product per acre.....	718 pounds.
CATTLE—Number being fed for spring market compared with an average	72 per cent.
SHEEP—Number fed for Mutton compared with an average..	70 per cent.

STATE AVERAGE PRICES.

	<i>Per Bushel.</i>
Clover Seed	\$7 34
Wheat	90
Corn	66
Barley	65
Oats	41
Rye	71
Potatoes	90
	<i>Per Ton.</i>
Hay	\$12 94
Alfalfa	15 00

Growing wheat shows same condition as reported one month ago—101 per cent. On corresponding date in 1912 condition was estimated

at 92 per cent. compared with an average. Damage to growing plant by Hessian fly is slight. Of the production of recent harvest, 44 per cent. was sold as soon as threshed.

Ohio's corn production shows a marked decline from the abundant harvest of last year. The total production for the state is estimated at 108,864,120 bushels. The state average production per acre is estimated at 36 bushels. Last year at this time the average production per acre was estimated at 40 bushels, with a total estimated production of 127,868,844 bushels. Of the present crop it is estimated that 9 per cent. was put into silos. The average date of cribbing was October 17. The present market value of corn is estimated at 66 cents per bushel. On December 1, 1912, the market value was estimated at 49 cents per bushel.

Tobacco production is estimated at 718 pounds per acre, as against 789 pounds per acre reported last year.

The number of cattle being fed for market shows a slight increase over one year ago, while a less number of sheep are being fed for mutton in comparison with last year.

The rather low yield of the apple crop for 1913 is due to several causes—chief of which were two severe freezes which came at critical periods in the spring of the year. The last one coming after the young fruits had begun to develop. The injury was greatest throughout the southern and eastern parts of the state. The crop was further depleted by the extended drought of the summer, preventing the apples from attaining normal size. The drop was also exceedingly heavy just preceding picking time, and was due to the same cause. The bulk of the crop for the state was harvested principally in the northern part of the state, but scattered crops of importance were harvested in different parts of the state. In spite of the fact that the crop is one of the lightest in recent years, prospects are very good for the greatest apple show ever held in the state. This occurs in Cleveland commencing January 20th, 1914.

NORTHEAST SECTION.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCTION OF CORN AND THE CONDITION OF OTHER CROPS DECEMBER 1, 1913.

Counties.	Number Reports Received.	Wheat.				Corn.					Clover.	
		Condition Compared With an Average.	Amount of Crop as Soon as Threshed.	Damage to Growing Crop by Hessian Fly.	Damage to Growing Crop by White Grub.	Area Planted in 1913 as Returned by Township Assessors.	Estimated Average Yield per Acre of Shelled Corn.	Total Estimated Product for 1913.	Per Cent. of Crop of 1913 Put Into Silo.	Date Cribbing Began Days After Oct. 1.	Per Cent. of Area Sown in 1912 Cut for Seed.	Average Yield of Seed per Acre.
		Per Cent.	Per Cent.	Per Cent.	Per Cent.	Acres.	Bushels.	Bushels.	Per Cent.	Days.	Per Cent.	Bushels.
Ashland.....	5	108	29	1	1	26,127	35	914,445	36	30	25	50
Ashtabula.....	17	100	26	1	1	16,720	29	484,890	14	18	18	155
Carroll.....	8	107	17	20	1	12,649	35	442,715	14	24	63	125
Columbiana.....	13	114	23	3	3	16,178	35	566,230	18	15	10	104
Coshocton.....	12	97	25	3	3	22,784	37	843,008	2	23	44	114
Cuyahoga.....	12	101	41	3	1	6,577	39	236,503	14	19	33	167
Erie.....	6	99	69	1	1	16,042	36	577,512	9	24	43	150
Geauga.....	11	106	33	1	1	8,632	38	327,916	55	16	7	267
Harrison.....	12	108	12	1	1	10,994	32	351,808	7	23	10	157
Holmes.....	7	107	25	2	3	23,047	36	829,692	4	13	61	107
Huron.....	11	99	48	3	3	34,488	31	1,069,128	11	19	36	127
Jefferson.....	13	106	26	3	1	9,102	34	309,468	7	22	23	114
Knox.....	15	103	39	4	1	30,941	36	1,113,876	3	16	29	100
Lake.....	6	99	28	3	1	5,744	33	189,552	16	13	31	117
Lorain.....	12	110	39	2	2	17,898	36	644,328	31	23	32	155
Mahoning.....	14	106	40	2	2	12,049	35	421,715	29	19	34	316
Medina.....	11	102	34	4	2	19,559	27	528,083	9	17	22	111
Portage.....	14	102	46	1	1	16,645	29	482,703	43	21	20	100
Richland.....	13	101	35	1	1	31,727	38	1,205,628	15	11	42	127
Stark.....	12	101	28	3	1	30,648	28	858,144	12	16	20	121
Summit.....	14	106	35	7	3	14,980	30	449,400	19	18	18	136
Trumbull.....	15	104	34	6	3	15,692	29	455,088	24	14	7	133
Tuscarawas.....	13	107	19	2	1	18,801	36	676,836	16	21	24	134
Wayne.....	12	105	29	3	4	40,167	37	1,466,179	18	17	29	119
Averages.....	278	103	32	3	1	458,193	34	15,547,827	18	Oct. 19	28	138
Totals.....												

STATE AVERAGES AND TOTALS.

Averages.....	101	44	3	1	36	2,988,115	9	108,864,120	37	141
Totals.....	923									

NORTHEAST SECTION—Concluded.
OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCTION OF CORN AND THE CONDI-
TION OF OTHER CROPS DECEMBER 1, 1913.

Counties.	Apples.		Tobacco.	Cattle.	Sheep.	Wheat.	Corn.	Barley.	Oats.	Rye.	Clover Seed.	Potatoes.	Hay.	Alfalfa.
	Probable Total Yield Compared With Last Year.	Probable Average Product per Acre.	No. Being Fed for Spring Market Compared With Average.	No. Being Fed Compared With an Average.	Per Cent.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Ton.	Price per Ton.
Ashtabula.....	30				90	\$0 90	\$0 85		\$0 38	\$0 60	\$8 00	\$0 75	\$13 00	\$16 00
Ashland.....	34			76	75	96	73		42	63	7 80	49	84	11 84
Carroll.....	29			67	78	93	72		40	60	7 80	81	80	13 80
Columbiana.....	51			101	64	94	72		47	88	8 00	83	14 23	20 87
Coshocton.....	24			80	65	91	67		42	76	7 18	95	11 65	16 00
Cuyahoga.....	63			83	82	94	75		48	76	7 80	87	18 00	20 00
Erie.....	50			64	63	91	68	\$0 69	39	63	7 25	70	12 55	15 25
Geauga.....	18			53	80	85	75		44	83	8 25	80	10 75	14 00
Harrison.....	40			67	59	96	74		47	82	8 00	99	12 42	
Holmes.....	55			67	65	91	70	75	41	81	6 92	67	10 80	
Huron.....	28			101	93	89	66		37	60	7 56	66	12 60	11 00
Jefferson.....	18			49	80	90	73		49	92	8 45	98	15 34	20 00
Knox.....	50			72	83	89	49		41	71	7 84	84	12 50	17 00
Lake.....	51			79	100	92	76		46	75	12 00	85	15 00	19 00
Lorain.....	47			67	73	91	68		42	75	7 55	84	14 00	18 00
Mahoning.....	37			77	77	92	74	80	48	81	8 50	84	15 32	20 00
Medina.....	33			66	71	90	69		41	61	6 87	73	13 21	20 00
Portage.....	50			78	72	91	69		44	85	8 00	69	13 00	20 00
Richland.....	26			64	80	87	51		37	58	6 89	77	13 40	18 00
Stark.....	35			65	58	90	67		42	81	7 84	81	14 58	18 00
Summit.....	63			78	63	92	66		44	72	7 70	89	16 00	22 00
Tuscarawas.....	34			63	57	95	77	88	45	88	8 13	90	13 67	19 50
Trumbull.....	26			59	67	91	74		45	79	8 71	87	12 42	14 50
Wayne.....	23			76	67	90	64	68	38	81	7 50	69	12 42	14 75
Averages Totals.....	38		69		73	\$0 91	\$0 69	\$0 77	\$0 43	\$0 77	\$7 48	\$0 81	\$13 49	\$17 48

STATE AVERAGES AND TOTALS.

Averages.....	37	718	72	70	\$0 90	\$0 66	\$0 65	\$0 41	\$0 71	\$7 34	\$0 90	\$12 94	\$15 00
Totals.....													

SOUTHEAST SECTION.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE AVERAGE AND PRODUCTION OF CORN AND THE CONDITION OF OTHER CROPS DECEMBER 1, 1913.

Counties.	Number Reports Received.	Wheat.				Corn.						Clover.	
		Condition Compared With an Average.	Amount of Crop of 1913 Sold as Soon as Threshed.	Damage to Growing Crop by Hessian Fly.	Damage to Growing Crop by White Grub.	Area Planted in 1913 as Returned by Township Assessors.	Estimated Average Yield per Acre of Shelled Corn.	Total Estimated Product for 1913.	Per Cent. of Crop Put into Silo.	Date Chopping Began After Oct. 1.	Per Cent. of Area Sown in 1913 Cut for Seed.	Per Cent. of Area Sown in 1913 Cut for Seed.	Average Yield of Seed per Acre.
		Per Cent.	Per Cent.	Per Cent.	Per Cent.	Acres.	Bushels.	Bushels.	Per Cent.	Days.	Per Cent.	Per Cent.	Bushels.
Athens	10	98	36	1	1	11,785	35	412,475	8	15	5	5	120
Belmont	15	107	40	4	4	17,273	40	690,920	12	13	28	28	155
Fairfield	14	100	47	2	1	51,748	38	1,996,348	5	11	50	50	121
Gallia	5	95	51	4	1	20,897	22	459,514	7	6	5	5	100
Guernsey	13	98	26	2	2	15,068	32	482,112	11	21	28	28	140
Hocking	8	101	43	2	3	10,746	31	333,126	6	19	23	23	140
Jackson	6	93	25	12	5	11,971	26	311,246	1	21			140
Lawrence	20	99	51	4	2	10,988	24	263,712	9	19	60	60	400
Licking	20	99	53	3	2	46,267	41	1,896,947	4	18	47	47	161
Meigs	8	90	36	4	3	11,881	25	297,025	6	19	15	15	183
Monroe	9	103	17	2	2	15,485	32	495,520	3	17	12	12	240
Morgan	10	100	35	3	3	12,573	32	402,336	7	17	42	42	129
Muskingum	16	100	26	2	2	23,768	35	831,890	8	9	38	38	134
Noble	10	101	20	3	3	14,642	36	527,112	3	12	21	21	140
Perry	11	100	28	2	1	16,238	36	584,568	5	9	49	49	157
Vinton	17	104	21	5	2	10,450	31	322,950	6	10	15	15	163
Washington	16	98	22	3	3	17,061	35	597,135	5	18	27	27	156
Averages		97	32	3	1	318,827	34	10,905,926	7	Oct. 15	20	20	165
Totals	198												

STATE AVERAGES AND TOTALS.

Averages	101	44	3	1	36	2,088,115	9	108,864,120	37	141
Totals	923									

SOUTHEAST SECTION—Concluded.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCTION OF CORN AND THE CON-
DITION OF OTHER CROPS DECEMBER 1, 1913.

Counties.	Apples.	Tobacco.	Cattle.	Sheep.	Wheat.	Corn.	Barley.	Oats.	Rye.	Clover Seed.	Potatoes.	Hay.	Alfalfa.
	Probable Total Yield Compared With Last Year.	Probable Average Product per Acre.	No. Being Fed for Spring Market Compared With Average.	No. Being Fed for Mutton Compared With an Average.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Ton.	Price per Ton.
Athens.....	9	962	63	55	\$0 89	\$0 89	85	\$0 44	\$0 82	\$8 37	\$0 83	\$13 00	\$13 50
Belmont.....	2		61	67	82	73		47	96	95	88	14 00	16 00
Fairfield.....	42		73	72	86	53		42	68	74	92	13 00	16 00
Gallia.....	42	700	45	50	91	71		49	84	83	94	14 50	16 00
Guernsey.....	22	500	62	61	82	72	90	48	91	63	99	14 68	19 25
Hocking.....	29		59	89	90	69		48	90	70	95	13 12	10 00
Jackson.....	6		38	55	92	72		48	91	10	119	14 83	
Lawrence.....	24	515	33	80	95	73		43	95	25	99	16 67	18 00
Licking.....	42		66	76	85	63		43	71	88	96	13 03	10 67
Mega.....	13		65	80	80	71	80	48	91	75	98	13 63	16 00
Monroe.....	19	988	69	57	102	77	80	51	91	80	104	13 89	18 00
Morgan.....	13		60	55	89	78		49	90	31	89	12 20	15 37
Muskingum.....	17		72	72	89	70		47	86	37	88	14 69	17 33
Noble.....	17	850	59	46	95	78	45	43	88	43	106	14 05	17 60
Perry.....	3		80	61	90	70		42	73	41	113	13 90	15 00
Vinton.....	10		49	73	88	66		46	82	60	100	12 07	
Washington.....	13	800	57	54	92	73		47	93	00	87	14 65	15 80
Averages.....	20	759	60	61	\$0 91	\$0 70	\$0 76	\$0 46	\$0 86	\$8 21	\$0 99	\$13 87	\$15 63
Totals.....													

STATE AVERAGES AND TOTALS.

Averages.....	37	718	72	70	\$0 90	\$0 66	\$0 65	\$0 41	\$0 71	\$7 34	\$0 90	\$12 94	\$15 00
Totals.....													

NORTHWEST SECTION.
OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCTION OF CORN AND THE CON-
DITION OF OTHER CROPS DECEMBER 1, 1913.

Counties.	Number Reports Received	Wheat.				Corn.				Clover.	
		Condition Compared With an Average.	Amount of Crop as Sown as Threshed.	Damage to Growing Crop by Hessian Fly.	Damage to Growing Crop by White Grub.	Area Planted in 1913 as Returned by Township Assessors.	Estimated Average Yield per Acre of Shelled Corn.	Total Estimated Product for 1913.	Per Cent. of Crop of 1913 Put into Silo.	Date Cribbing Began Days After Oct. 1.	Per Cent. of Area Sown in 1912 Cut for Seed.
		Per Cent.	Per Cent.	Per Cent.	Per Cent.	Acres.	Bushels.	Bushels.	Per Cent.	Days.	Per Cent.
Allen.....	9	99	57	1	1	38,940	34	1,323,960	2	11	58
Auglaize.....	9	99	64	1	1	45,982	39	1,793,298	4	4	140
Champaign.....	7	102	52	1	1	55,617	36	2,002,212	14	16	59
Crawford.....	17	103	35	1	1	39,313	44	1,739,773	14	14	46
Darke.....	13	94	64	5	1	87,187	39	3,399,513	7	17	53
Defiance.....	10	101	35	1	1	33,827	36	1,217,772	8	17	42
Delaware.....	13	103	53	1	1	35,892	38	1,261,752	3	21	77
Putnam.....	8	100	38	1	1	38,974	38	1,481,012	11	21	120
Hancock.....	13	104	48	2	1	53,136	39	2,072,204	8	31	90
Hardin.....	13	102	60	1	1	36,104	43	1,552,472	12	12	120
Henry.....	6	106	22	1	1	60,103	47	2,824,841	5	18	167
Logan.....	9	104	63	4	1	44,540	33	1,489,831	6	12	131
Lucas.....	9	104	49	1	3	25,278	39	1,985,842	7	12	128
Marion.....	10	94	59	2	1	48,708	38	1,183,416	7	15	61
Mercer.....	10	96	36	1	2	43,940	38	1,707,730	2	10	53
Morrow.....	14	107	37	1	1	38,716	30	1,037,866	5	16	71
Ottawa.....	7	107	22	1	1	29,719	35	1,795,865	8	11	125
Paulding.....	7	103	63	1	1	57,492	42	2,415,084	1	20	36
Putnam.....	10	108	63	3	1	38,063	47	2,632,641	4	23	117
Sandusky.....	7	98	55	1	1	38,794	37	1,357,780	5	23	101
Seneca.....	12	99	52	2	1	53,889	35	1,875,915	5	21	68
Shelby.....	11	96	55	2	1	42,893	39	1,670,292	5	19	106
Union.....	15	89	71	3	1	46,353	35	1,823,475	5	26	129
Van Wert.....	7	101	46	2	1	52,786	44	2,330,384	4	21	100
Williams.....	10	108	30	2	1	35,882	32	1,146,624	4	7	60
Wood.....	13	100	47	2	1	90,823	36	3,269,808	4	8	113
Wyandot.....	9	100	51	3	1	38,950	46	1,790,700	6	8	63
Averages.....	288	101	49	2	1	1,253,463	39	48,539,045	5	15	56
Totals.....											
STATE AVERAGES AND TOTALS.											
Averages.....	101	44	3	1	1	2,988,116	36	108,864,120	9	Oct. 17	37
Totals.....	923										141

NORTHWEST SECTION—Concluded.
OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCTION OF CORN AND THE CON-
DITION OF OTHER CROPS DECEMBER 1, 1913.

Counties.	Apples.	Tobacco.	Cattle.	Sheep.	Wheat.	Corn.	Barley.	Oats.	Rye.	Clover Seed.	Potatoes.	Hay.	Alfalfa.
	Probable Total Yield Com- pared With Last Year.	Probable Aver- age Product per Acre.	No. Being Fed for Spleen Market Compared With Average.	No. Being Fed Compared With an Aver- age.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Ton.	Price per Ton.
			PerCent.	PerCent.									
Allen.....	17	.....	97	78	\$0 88	\$0 55	\$0 52	\$0 41	\$0 69	\$6 92	\$0 79	\$11 33	\$12 00
Auglaize.....	42	.....	86	80	\$0 88	55	56	37	57	7 31	91	11 68	14 00
Champaign.....	44	.....	66	51	\$0 90	55	55	35	60	5 89	93	11 14	13 12
Crawford.....	12	.....	89	84	\$0 89	56	60	36	59	6 94	83	12 59	11 86
Darke.....	28	681	65	66	\$0 91	54	50	37	57	6 73	85	12 00	11 00
Defiance.....	80	450	82	82	\$0 88	61	62	37	55	7 14	78	11 80	11 00
Delaware.....	32	.....	73	75	\$0 88	61	55	39	65	7 90	96	11 73	12 00
Fulton.....	31	.....	75	81	\$0 89	58	40	35	55	5 56	75	11 25	14 25
Hancock.....	20	.....	89	90	\$0 86	61	65	37	55	7 00	81	11 00	12 50
Henry.....	37	.....	96	87	\$0 91	53	40	36	59	7 28	89	11 37	13 50
Hardin.....	23	.....	84	85	\$0 92	64	60	39	63	6 83	86	11 80	13 50
Logan.....	53	.....	77	84	\$0 87	54	49	35	61	6 21	96	11 50	13 57
Lucas.....	52	.....	72	55	\$0 89	66	53	40	66	7 55	75	10 17	10 46
Marion.....	25	.....	88	84	\$0 88	65	55	38	62	7 10	89	10 44	11 67
Mercer.....	18	.....	67	80	\$0 88	58	55	37	57	7 32	87	11 45	11 67
Morrow.....	58	.....	77	91	\$0 88	57	55	37	57	7 37	72	11 27	13 00
Ottawa.....	27	.....	78	100	\$0 91	95	64	39	63	7 08	86	12 25	13 00
Paulding.....	26	.....	90	90	\$0 86	53	54	38	58	7 30	87	11 11	14 67
Putnam.....	9	.....	81	87	\$0 88	61	51	37	57	6 96	89	11 88	12 83
Sandusky.....	31	.....	70	58	\$0 92	61	65	37	62	7 50	74	11 88	12 80
Seneca.....	37	.....	79	94	\$0 89	57	47	38	55	5 82	96	11 23	13 00
Shelby.....	61	750	77	76	\$0 88	58	80	36	56	7 17	102	10 84	12 20
Union.....	23	.....	65	80	\$0 93	59	59	38	58	7 36	73	11 70	12 50
Van Wert.....	22	.....	68	69	\$0 87	59	56	36	56	7 40	83	11 00	13 83
Williams.....	50	.....	84	83	\$0 88	62	53	36	58	7 46	88	12 39	9 50
Wood.....	54	.....	79	82	\$0 89	63	55	38	64	6 77	88	12 39	9 50
Wyandot.....	16	.....	95	89	\$0 91	52	55	36	64	6 77	88	12 39	9 50
Averages.....	35	627	80	76	\$0 88	\$0 61	\$0 57	\$0 37	\$0 60	\$7 00	\$0 85	\$11 47	\$12 67
Totals.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
STATE AVERAGES AND TOTALS.													
Averages.....	37	718	72	70	\$0 90	\$0 66	\$0 65	\$0 47	\$0 71	\$7 34	\$0 90	\$12 94	\$15 00
Totals.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

SOUTHWEST SECTION.

OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCTION OF CORN AND THE CONDITION OF OTHER CROPS DECEMBER 1, 1913.

Counties.	Number Reports Received	Wheat.				Corn.					Clover.			
		Condition Compared With an Average.	Amount of Crop of 1913 Sold as Soon as Threshed.	Damage to Growing Crop by Hessian Fly.	Damage to Growing Crop by White Grub.	Area Planted in 1913 as Returned by Township Assessors.	Estimated Average Yield per Acre of Shelled Corn.	Bushels.	Total Estimated Product for 1913.	Per Cent. of Crop of 1913 Put Into Silo.	Date Cribbing Began After Oct. 1.	Per Cent. of Area Sown in 1912 Cut for Seed.	Average Yield of Seed per Acre.	
		Per Cent.	Per Cent.	Per Cent.	Per Cent.	Acres.	Bushels.	Bushels.	Bushels.	Per Cent.	Days.	Per Cent.	Bushels.	
Adams.....	12	99	53	5	2	30,141	29	874,089	7	19	25	160		
Brown.....	12	100	58	9		44,235	21	928,935		19	25	133		
Butler.....	16	99	49	4	1	51,439	35	1,800,365		19	28	129		
Clark.....	6	104	73	4		43,898	40	1,755,920	16	18	37	162		
Clermont.....	9	97	53	2	3	38,717	28	1,054,076	10	11	16	131		
Clinton.....	12	102	77	1	3	58,370	37	2,159,690	11	12	19	188		
Fayette.....	4	96	79		1	46,551	55	2,580,305	21	11	11	162		
Franklin.....	15	109	48	2		55,840	37	2,066,080	9	13	44	137		
Greene.....	7	102	75		1	59,308	38	2,253,704	3	16	23	161		
Hamilton.....	6	104	41	3		16,241	35	1,568,435	1	19	47	125		
Highland.....	15	95	45	9		68,380	31	1,774,874	9	18	48	160		
Madison.....	8	102	74	1		52,920	35	2,393,300	3	23	47	115		
Miami.....	6	102	66	1	1	72,069	33	1,746,360	4	14	33	133		
Montgomery.....	10	99	64	2		73,029	31	2,848,131	6	14	36	105		
Pickaway.....	10	101	69	5		73,029	39	2,848,131	8	9	25	143		
Pike.....	6	109	31	2		23,533	24	564,792	6	14	51	137		
Preble.....	6	107	71	8		47,819	47	2,247,493	3	16	38	150		
Ross.....	9	96	57	3		62,615	33	2,067,285	3	24	22	137		
Scioto.....	11	84	55	15		22,368	33	738,144	3	23	6	200		
Warren.....	9	106	75	5		47,865	33	1,580,205	8	24	15	172		
Averages.....		101	61	4	1	957,612	36	33,871,322	7	Oct. 17	30	145		
Totals.....	189													
STATE AVERAGES AND TOTALS.														
Averages.....	101	44	3	1		2,988,115	36	108,864,120	9	Oct. 17	37	141		
Totals.....	923													

SOUTHWEST SECTION—Concluded.
OFFICIAL REPORT OF THE OHIO AGRICULTURAL COMMISSION ON THE ACREAGE AND PRODUCTION OF CORN AND THE CON-
DITION OF OTHER CROPS DECEMBER 1, 1913.

Counties.	Apples.	Tobacco.	Cattle.	Sheep.	Wheat.	Corn.	Barley.	Oats.	Rye.	Clover Seed.	Potatoes.	Hay.	Alfalfa.
	Probable Total Yield Compared With Last Year.	Probable Average Product per Acre.	No. Being Fed for Spring Market Compared With Average.	No. Being Fed Compared With Average.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Bushel.	Price per Ton.	Price per Ton.
	Per Cent.	Pounds.	Per Cent.	Per Cent.	\$	\$	\$	\$	\$	\$	\$	\$	\$
Adams.....	30	758	43	33	\$0 88	\$0 70	.....	\$0 45	\$0 73	\$8 45	\$1 08	\$14 17	\$15 00
Brown.....	84	755	56	61	.....	60	.....	41	81	7 60	1 03	14 42	16 00
Butler.....	71	500	65	48	.....	60	\$0 82	41	81	6 40	1 09	14 87	15 40
Clark.....	85	850	59	79	.....	61	.....	35	81	6 40	1 09	14 87	15 40
Clermont.....	44	760	74	86	.....	70	75	43	70	7 85	1 00	15 00	15 00
Clinton.....	26	812	80	71	.....	61	58	39	73	6 50	1 00	13 00	15 00
Payette.....	47	.....	79	45	.....	63	.....	32	80	5 50	1 00	10 00	20 00
Franklin.....	36	.....	76	76	.....	60	70	42	68	5 55	1 01	14 15	15 23
Greene.....	36	800	77	85	.....	58	60	37	60	5 50	1 00	15 23	15 75
Hamilton.....	52	500	90	93	.....	73	67	44	64	5 50	1 00	18 67	18 34
Highland.....	82	500	61	57	.....	68	.....	45	73	7 36	1 00	12 67	16 00
Madison.....	47	560	68	72	.....	87	.....	36	63	6 87	1 00	11 86	13 62
Medina.....	31	.....	87	89	.....	61	.....	39	63	6 87	1 00	12 00	12 60
Miami.....	49	810	91	79	.....	57	55	44	59	6 86	1 00	14 50	15 00
Montgomery.....	64	688	61	55	.....	80	.....	36	73	7 43	1 05	13 16	14 00
Pickaway.....	73	.....	73	100	.....	59	.....	43	65	7 43	1 05	13 16	14 00
Pike.....	27	700	80	87	.....	94	.....	37	81	7 80	1 08	12 23	13 14
Poble.....	40	820	81	63	.....	58	.....	43	81	7 80	1 01	15 10	16 00
Ross.....	59	.....	95	87	.....	88	80	45	77	7 50	1 01	15 10	16 00
Schoon.....	32	620	75	84	.....	68	65	42	60	6 19	1 09	12 00	12 48
Warren.....	81	818	99	93	.....	61	.....	.....	.....	.....	.....	.....	.....
Averages.....	53	717	75	67	\$0 86	\$0 65	\$0 68	\$0 41	\$0 66	\$6 89	\$1 00	\$13 48	\$15 00
Totals.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

STATE AVERAGES AND TOTALS.				
Averages.....	37	718	72	70
Totals.....	.....	.....	.....	.....

TABLE SHOWING THE ANNUAL PRODUCTION AND PRICE OF WHEAT AND CORN FOR THE YEARS 1850 TO 1913, INCLUSIVE.

Year.	Bushels of Wheat.	Average Number of Bushels per Acre.	Price per Bushel.		Bushels of Corn.	Average Number of Bushels per Acre.	Price per Bushel.		Average Number of Bushels per Acre.
			Range.	Average.			Range.	Average.	
1850.....	31,500,000	18	\$0 70 to \$1 10	\$0 89	56,619,608	36.8	\$0 24 to \$0 51	\$0 33	
1851.....	25,309,225	15.2	58 to 73	69	51,271,382	36.7	30 to 44	30 94	
1852.....	23,043,737	14.1	59 to 63	60	53,165,517	33.6	25 to 45	39	
1853.....	17,118,911	12	62 to 85	73	73,438,070	40	37 to 55	43	
1854.....	11,686,110	8	82 to 85	1 19	53,171,551	28	40 to 55	49	
1855.....	12,689,320	13.81	1 70 to 2 00	1 54	87,587,434	39.7	55 to 80	67	
1856.....	12,689,320	10.2	1 10 to 1 70	1 27	57,802,515	32	32 to 63	43	
1857.....	12,689,320	13.8	1 00 to 1 60	1 18	57,802,515	32	48 to 80	59	
1858.....	17,685,483	17.4	61 to 1 00	1 77	50,863,589	27.7	35 to 61	73	
1859.....	25,217,967	13.2	90 to 1 38	1 15	69,780,346	29.5	50 to 90	72	
1860.....	25,217,967	13.8	93 to 1 38	1 17	91,583,704	38.2	39 to 80	50	
1861.....	20,055,424	11	65 to 1 12	83	74,853,575	38.5	28 to 50	34	
1862.....	20,764,387	12	72 to 1 00	86	49,704,387	39	27 to 40	31	
1863.....	20,452,410	11.86	82 to 1 30	1 04	54,614,017	37	35 to 70	53	
1864.....	15,541,585	9.83	95 to 2 12	1 41	53,033,431	27	33 to 1 27	1 07	
1865.....	13,234,139	9	1 25 to 2 07	1 78	63,033,668	35	33 to 1 27	1 07	
1866.....	5,821,747	4.5	1 75 to 2 80	2 27	80,386,320	36.5	33 to 65	54	
1867.....	13,350,721	11.51	1 95 to 3 50	2 79	53,875,064	34.4	32 to 1 08	92	
1868.....	16,480,069	11.31	1 15 to 1 98	2 31	70,725,238	39.8	57 to 1 10	73	
1869.....	26,499,729	15.37	1 08 to 1 33	1 57	62,443,346	29.4	39 to 1 05	53	
1870.....	18,726,341	11.29	1 10 to 1 55	1 27	83,365,299	37.5	50 to 79	56	
1871.....	22,274,378	13.27	1 13 to 2 08	1 58	93,363,060	36.7	44 to 57	49	
1872.....	18,987,664	11.22	1 30 to 1 80	1 56	103,058,234	40.9	39 to 70	43	
1873.....	21,974,385	12.61	1 03 to 1 60	1 38	84,049,328	35.1	33 to 55	40	
1874.....	26,806,818	14.51	1 03 to 1 75	1 38	101,815,494	39.8	43 to 75	90	
1875.....	17,867,967	9.22	1 03 to 1 50	1 16	97,825,024	34.1	38 to 57	73	
1876.....	15,354,569	10.18	1 00 to 1 50	1 10	112,552,642	36.8	40 to 73	51	
1877.....	27,306,566	15.63	1 08 to 2 15	1 41	101,884,305	32.5	40 to 49	46	
1878.....	35,218,783	16.58	85 to 1 35	1 11	114,839,107	37.8	43 to 49	42	
1879.....	41,052,120	17.78	85 to 1 15	96	96,908,800	34	31 to 45	37	
1880.....	48,540,307	17.20	93 to 1 37	1 16	105,414,504	38.9	42 to 51	43	
1881.....	38,102,633	13.8	88 to 1 39	1 10	78,712,796	31	40 to 87	49	
1882.....	42,112,103	15.59	95 to 1 50	1 32	80,869,137	34	56 to 87	73	
1883.....	27,169,738	10.67	95 to 1 17	1 05	64,001,618	24.2	44 to 76	54	
1884.....	36,396,119	14.4	80 to 1 10	1 1	87,797,813	33.3	40 to 62	53	
1885.....	24,183,430	9.8	72 to 1 09	84	112,192,744	39	37 to 59	47	
1886.....	37,660,681	14	74 to 1 00	88	88,818,556	33.5	32 to 58	39	
1887.....	28,400,060	10.4	71 to 96	80	83,118,338	30.5	44 to 55	40	
1888.....	26,160,984	11.7	71 to 96	85	111,155,506	38.9	34 to 61	53	
1889.....	31,663,448	14.6	73 to 1 15	93	87,838,192	32.3	30 to 49	37	
1890.....	31,609,676	13.8	75 to 1 02	83	63,694,215	24.5	27 to 56	36	
1891.....	45,063,480	17.5	82 to 1 16	99	86,500,000	33	49 to 77	60	
1892.....	38,381,598	14.4	73 to 1 01	90	81,892,100	30.8	39 to 67	43	
1893.....	45,131,569	17.2	52 to 93	64	77,225,446	26	37 to 45		

1894.....	45,537,524	30	43 to	53	51	88,805,607	35	35 to	59	45
1895.....	39,755,247	17	53 to	59	64	102,417,445	33.9	34 to	56	41
1896.....	38,511,743	18.52	53 to	57	72	124,963,274	41	33 to	53	37
1897.....	37,719,636	16.52	72 to	1 00	28	105,004,970	34.34	23 to	34	33
1898.....	41,941,571	15.56	64 to	1	37	114,314,148	37.35	27 to	41	34
1899.....	41,439,763	14.03	63 to	77	72	115,138,669	36.74	29 to	40	36
1900.....	10,866,135	6	79 to	89	75	143,161,675	33	32 to	47	40
1901.....	31,150,373	14.57	64 to	90	77	92,368,811	25.74	32 to	47	40
1902.....	36,901,312	18.1	63 to	84	74	122,675,349	37.3	39 to	74	52
1903.....	28,074,367	14.4	70 to	93	78	92,820,349	29.1	40 to	62	56
1904.....	21,090,223	12.2	90 to	1 15	1 02	100,529,653	32.8	41 to	53	45
1905.....	32,462,786	17.3	75 to	1 14	92	108,538,592	37.8	39 to	54	46
1906.....	89,279,680	19.4	63 to	95	80	127,044,784	42.2	39 to	55	46
1907.....	80,913,367	15.4	.....	.....	.....	100,620,205	34.7	.....	.....	.....
1908.....	26,955,496	15.89	.....	.....	.....	102,622,908	36.12	.....	.....	.....
1909.....	27,393,444	15.75	.....	.....	.....	127,213,227	38.77	.....	.....	.....
1910.....	31,952,274	16	.....	.....	.....	110,803,783	31	.....	.....	.....
1911.....	30,047,056	15	.....	.....	.....	112,122,314	37	.....	.....	.....
1912.....	10,856,948	10	.....	.....	.....	127,726,069	39	.....	.....	.....

AGRICULTURAL REPORT.

Decades.	Average Bushels of Wheat.	Average Bushels per Acre.	Range of Price per Bushel.	Average Price per Bushel.	Average Bushels of Corn.	Average Bushels per Acre.	Range of Price per Bushel.	Average Price per Bushel.
1850 to 1860.....	20,023,460	12.29	\$0 58 to \$2 00	\$1 00	64,920,369	33.4	\$0 24 to \$0 90	\$0 48
1860 to 1870.....	17,584,085	10.91	60 to 3 50	1 61	68,930,426	32	27 to 1 29	64
1870 to 1880.....	24,656,959	13.29	85 to 2 15	1 27	99,986,129	36.5	38 to 1 05	54
1880 to 1890.....	34,038,945	13.21	71 to 1 50	1 00	90,991,979	33.5	30 to 87	45
1890 to 1900.....	38,042,989	15.19	48 to 1 45	77	89,648,770	32	18 to 77	39
1900 to 1910.....	28,809,210	14.50	.....	.....	111,760,155	36.64	.....	.....

**AVERAGE PRICES OF OTHER FARM PRODUCTS THAN WHEAT AND CORN IN THE LOCAL
MARKETS OF OHIO FROM 1855 TO 1912, INCLUSIVE.**

	Barley.	Oats.	Rye.	Hay.	Potatoes.
	Per Bushel.	Per Bushel.	Per Bushel.	Per Ton.	Per Bushel.
1855.....	\$1 35	\$0 29½	\$0 70	\$14 71	.....
1856.....	1 58	46	91	21 00	.....
1857.....	58	36	58	13 46	.....
1858.....	67	57	82	15 38	.....
1859.....	76	43	86	17 73	.....
1860.....	69	27	56	12 62	.....
1861.....	60	30	48	11 85	.....
1862.....	1 36	58	76	16 34	.....
1863.....	1 51	78½	1 35	27 16	.....
1864.....	1 28	52	1 15	26 00	.....
1865.....	1 41	42	80	12 63	.....
1866.....	1 53	57	1 28	19 76	.....
1867.....	2 11	69	1 62	14 80	.....
1868.....	2 37	64	1 28	16 42	.....
1869.....	1 26	54	92	17 44	.....
1870.....	1 00	46	91	18 45	.....
1871.....	78	37	85	20 79	.....
1872.....	87	36	76	22 18	.....
1873.....	1 51	48	93	17 16	.....
1874.....	1 41	59	1 06	20 98	.....
1875.....	1 20	38	74	17 66	.....
1876.....	90	37	74	11 67	.....
1877.....	52	29	59	9 86	.....
1878.....	1 00	27	54	10 79	.....
1879.....	89	34	82	15 87	.....
1880.....	98	38	1 04	16 36	.....
1881.....	1 05	50	94	17 90	\$1 07
1882.....	76	39	62	12 39	67
1883.....	76	34	62	11 63	46
1884.....	80	32	63	12 81	50
1885.....	86	30	63	12 16	48
1886.....	61	29	58	11 17	53
1887.....	81	33	62	14 79	88
1888.....	78	26	52	12 74	40
1889.....	57	27	50	10 56	52
1890.....	77	48	81	10 58	97
1891.....	70	33	85	11 25	45
1892.....	69	33	78	11 10	55
1893.....	64	32	55	12 55	74
1894.....	60	35	52	10 95	66
1895.....	56½	27	53	12 70	49
1896.....	36	20	36	12 83	28
1897.....	39	22	39	11 00	48
1898.....	47	27	51	8 65	57
1899.....	52	27	62	10 10	49
1900.....	51	25	59	13 95	43
1901.....	62	34	60	11 00	60
1902.....	57	37	54	10 50	65
1903.....	58	38	59	12 00	75
1904.....	59	37	60	11 50	80
1905.....	48	30	50	10 75	55
1906.....	56	32	56	12 00	44
1907.....	.....	.....	.....	.....	32
1908.....	.....	.....	.....	.....	61
1909.....	.....	.....	.....	.....	44
1910.....	.....	.....	.....	.....	45
1911.....	.....	.....	.....	.....	.....
1912.....	.....	.....	.....	.....	.....

TABULAR STATEMENT EXHIBITING THE NUMBER OF HORSES, CATTLE, MULES, SHEEP, AND HOGS RETURNED BY THE SEVERAL COUNTY AUDITORS, FOR THE YEARS 1912 AND 1913.

Counties.	Number of Horses.		Number of Cattle.		Number of Mules.		Number of Sheep.		Number of Hogs.	
	1912.	1913.	1912.	1913.	1912.	1913.	1912.	1913.	1912.	1913.
Adams.....	6,228	5,094	9,447	9,694	451	457	7,829	6,613	8,177	9,424
Allen.....	10,636	9,278	13,550	11,921	170	150	19,990	12,430	28,785	23,049
Ashtabula.....	8,302	8,109	12,147	12,147	172	374	35,043	27,011	14,043	13,095
Athens.....	12,180	11,790	30,964	27,669	187	238	9,437	7,302	6,385	5,386
Auglaize.....	4,317	6,063	9,043	11,299	232	232	40,333	42,133	2,660	3,514
	10,386	10,503	15,486	15,811	273	270	8,903	6,474	28,769	26,359
Belmont.....	8,634	8,916	17,535	17,978	244	263	56,057	52,263	7,728	8,209
Brown.....	8,241	7,806	13,128	12,598	516	528	9,433	7,804	20,710	18,904
Butler.....	10,957	10,655	15,743	15,547	799	822	9,025	7,804	26,976	24,910
Carroll.....	5,728	5,639	11,681	11,930	91	98	52,099	45,319	7,347	6,944
Champaign.....	11,756	11,728	15,224	16,013	559	563	26,744	15,617	37,922	36,677
Clark.....	12,562	12,197	18,012	17,186	610	609	24,961	19,220	27,019	25,031
Clermont.....	8,254	7,991	15,174	14,776	781	799	4,336	3,436	14,280	13,442
Columbiana.....	10,802	9,568	14,041	12,033	682	659	24,232	15,690	38,461	41,921
Coshocton.....	10,812	10,841	19,604	18,978	338	338	21,998	17,858	9,792	8,725
Crawford.....	6,821	7,016	12,957	13,359	149	208	81,632	78,148	17,535	12,502
Cuyahoga.....	9,364	9,517	13,931	13,896	274	269	46,404	39,357	27,342	26,093
	16,315	15,797	13,006	11,322	194	211	3,469	2,591	2,102	1,723
Darke.....	19,471	19,322	24,489	22,300	462	442	6,747	5,858	40,590	40,862
Defiance.....	8,333	8,394	10,098	9,137	120	124	13,508	9,598	15,487	15,151
Delaware.....	10,173	10,076	17,322	17,163	182	190	51,368	41,636	21,388	21,022
Erie.....	6,305	6,489	7,279	7,322	49	67	11,275	8,944	7,580	7,242
Fairfield.....	11,713	11,761	19,674	20,176	218	206	15,986	13,263	35,052	35,205
Fayette.....	11,619	11,275	13,203	14,169	408	412	21,775	19,019	31,485	44,513
Franklin.....	16,286	15,871	20,439	20,439	392	433	10,319	9,087	23,516	22,375
Fulton.....	8,568	8,774	16,302	15,774	78	85	11,019	9,180	17,619	17,861
Gallia.....	5,504	5,340	10,407	10,036	291	293	17,226	13,701	4,462	4,468
Geauga.....	6,280	6,264	21,012	19,317	72	68	4,790	3,974	4,112	2,894
Greene.....	10,024	11,109	14,648	15,814	601	586	21,468	19,033	35,513	36,862
Guernsey.....	7,356	7,250	12,999	14,460	165	184	70,583	61,115	5,450	5,727
Hamilton.....	14,903	14,662	15,156	14,299	1,603	1,401	2,765	1,819	10,080	7,660
Hancock.....	11,830	11,600	19,270	20,221	234	234	34,800	27,721	45,819	44,838
Hardin.....	11,056	10,776	15,545	14,706	324	289	47,252	36,855	36,743	33,784

Harrison.....	5,336	5,401	9,880	10,503	112	126	104,230	90,942	5,590	5,575
Henry.....	9,095	8,096	12,928	10,971	177	197	6,067	4,226	15,106	13,781
Highland.....	10,886	10,614	17,799	17,917	611	577	22,548	23,612	36,781	39,128
Hocking.....	4,389	4,277	8,546	8,480	110	107	13,993	12,831	5,255	4,953
Holmes.....	7,459	7,359	13,734	13,565	107	147	21,077	21,077	15,208	14,637
Huron.....	9,802	9,956	12,893	12,144	170	189	57,683	45,140	13,752	12,817
Jackson.....	3,818	3,659	9,883	9,896	251	249	3,784	3,941	3,743	3,197
Jefferson.....	5,819	5,732	9,697	9,696	169	198	48,727	37,354	5,057	5,254
Knox.....	7,728	9,145	12,816	14,756	213	244	102,157	99,696	16,616	20,778
Lake.....	4,850	4,690	7,443	7,584	49	9	3,425	2,738	2,324	1,972
Lawrence.....	3,765	4,029	8,058	8,080	446	431	1,783	1,571	3,621	3,585
Licking.....	13,012	15,493	28,733	24,725	321	353	98,737	98,737	24,092	25,277
Logan.....	11,569	11,540	17,528	16,776	296	291	41,463	31,386	28,565	24,561
Lorain.....	10,809	10,770	20,387	19,036	67	73	15,014	12,645	6,686	5,711
Lucas.....	5,485	5,243	8,977	8,332	58	58	1,449	1,146	9,945	8,769
Madison.....	12,851	12,211	18,030	16,407	465	381	26,883	21,063	35,936	40,199
Marion.....	9,927	8,142	13,179	15,434	280	276	19,815	15,514	7,244	6,034
Marion.....	9,441	8,142	13,179	15,434	274	267	45,744	35,392	34,444	30,654
Medina.....	8,288	8,290	13,556	13,581	146	184	18,310	14,918	7,933	8,254
Meigs.....	5,270	5,046	10,251	9,809	200	204	39,597	28,712	3,199	3,123
Mercer.....	12,287	12,228	16,921	16,353	232	242	11,659	8,373	29,156	28,682
Miami.....	10,253	9,431	13,028	12,150	576	548	3,249	2,548	20,209	19,040
Monroe.....	4,992	4,692	10,667	10,572	86	89	19,545	19,033	20,261	19,449
Montgomery.....	15,125	14,992	18,850	17,657	616	666	9,345	2,968	23,555	24,176
Morgan.....	4,572	4,642	8,803	9,711	120	120	72,172	70,867	3,584	4,205
Morrow.....	8,279	8,402	12,290	12,699	199	178	63,075	53,105	13,865	13,901
Muskingum.....	9,576	7,294	19,293	16,780	424	443	99,641	75,714	9,217	8,423
Noble.....	5,725	5,554	12,919	13,528	117	113	54,644	49,858	4,923	5,794
Ottawa.....	6,764	6,020	8,965	6,884	29	33	4,621	3,027	8,759	5,426
Paulding.....	10,392	10,008	7,885	7,194	311	337	10,031	6,417	13,087	11,759
Perry.....	6,367	6,894	11,079	13,037	93	108	24,905	24,851	9,147	10,121
Pickaway.....	12,180	12,223	13,408	19,390	534	502	9,654	7,160	31,642	28,197
Pike.....	3,199	4,267	5,125	5,321	285	309	5,335	4,212	5,383	6,927
Portage.....	8,807	9,215	19,930	19,122	183	184	14,331	13,336	6,671	5,925
Preble.....	11,066	9,304	14,897	14,136	786	743	7,281	5,325	38,858	35,790
Putnam.....	10,873	11,797	14,312	15,058	151	166	12,202	8,842	31,680	30,610
Richland.....	9,937	10,140	16,011	15,790	440	416	40,108	31,208	18,700	18,175
Ross.....	10,656	12,045	15,096	17,815	376	333	12,344	10,848	28,744	27,502
Sandusky.....	9,692	9,712	11,650	12,307	94	122	14,664	10,523	22,214	18,699
Scioto.....	5,932	5,830	9,350	8,434	778	795	1,224	1,051	6,618	6,388
Seneca.....	12,391	11,856	16,522	14,742	200	201	37,311	30,191	33,236	30,119
Shelby.....	9,840	9,711	14,254	13,832	220	202	6,497	3,914	20,772	17,709
Stark.....	14,965	14,166	24,223	21,793	283	221	12,960	8,699	17,479	15,177
Summit.....	10,286	6,239	18,169	14,111	204	138	4,319	2,518	8,524	5,636

TABULAR STATEMENT EXHIBITING THE NUMBER OF HORSES, CATTLE, MULES, SHEEP AND HOGS RETURNED BY THE SEVERAL COUNTY AUDITORS, FOR THE YEARS 1912 AND 1913—Concluded.

Counties.	Number of Horses.		Number of Cattle.		Number of Mules.		Number of Sheep.		Number of Hogs.	
	1912.	1913.	1912.	1913.	1912.	1913.	1912.	1913.	1912.	1913.
Trumbull.....	10,236	11,493	24,470	25,760	181	220	13,178	11,241	6,587	5,840
Tuscarawas.....	9,353	9,269	18,195	18,391	171	177	32,345	25,134	11,450	11,570
Union.....	10,261	10,159	14,583	13,495	174	154	45,210	35,976	31,371	28,991
Van Wert.....	11,399	11,519	11,407	10,962	208	333	11,808	8,124	23,987	19,062
Vinton.....	2,794	2,336	5,549	5,358	224	220	20,295	18,876	2,459	2,467
Warren.....	9,708	9,893	15,071	13,985	707	662	10,250	8,142	24,827	20,789
Washington.....	7,602	7,541	14,362	13,923	209	182	39,648	34,156	5,399	5,596
Wayne.....	14,141	13,586	22,872	22,148	514	571	16,490	14,607	23,238	22,336
Williams.....	8,033	9,899	12,612	13,358	187	228	19,214	17,709	20,570	24,115
Wood.....	16,418	15,847	20,735	20,362	250	268	14,440	10,276	37,908	33,197
Wyandot.....	8,969	8,923	10,830	11,772	232	232	72,023	58,402	29,424	27,788
Totals.....	825,613	816,170	1,286,276	1,260,081	26,637	27,120	2,355,448	1,982,993	1,569,563	1,512,875

Horses..... 9,443 decrease.
 Cattle..... 26,195 decrease.
 Mules..... 483 increase.
 Sheep..... 372,455 decrease.
 Hogs..... 56,698 decrease.

ANNUAL AGRICULTURAL STATISTICS.

1912-1913

The following agricultural statistics, as returned by township assessors in May, are reported to the Secretary of Agriculture by the county auditors, in accordance with Section 1523 of the Revised Statutes.

The crops, to which these statistics relate, being for the preceding year, have value as matters of record and reference, and as a basis for comparison in estimating the condition or prospects of crops during the growing and harvest seasons, which estimates are published monthly by the Department of Agriculture, and give valuable information to farmers at times when most needed and when of the most benefit.

The annual agricultural statistics here published present a very vivid picture of the importance of Ohio as an agricultural state, and the great diversity of her agricultural products, and point conclusively to the counties most noted for any particular production as well as the range of production in the different counties, and in these respects also have interest and value.

In the case of fall seeded grain crops, the area is returned for the current year's harvest, and for the crops of corn and potatoes the estimated area is returned for the anticipated harvest of the year. These stated areas enable the Department to make valuable estimates on probable total production of growing crops and with considerable degree of correctness.

AGRICULTURAL STATISTICS.

NORTHEAST SECTION.

Counties.	Wheat.			Rye.			Buckwheat.	
	Acres sown for harvest 1912.	Bushels produced 1912.	Acres sown for harvest 1913.	Acres sown for 1912.	Bushels produced 1912.	Acres sown for 1913.	Acres sown for 1912.	Bushels produced 1912.
Ashland.....	17,202	67,928	22,048	1,637	13,441	3,161	86	1,686
Ashtabula.....	6,429	85,755	6,596	581	8,472	983	8,916	91,523
Carroll.....	11,789	120,222	15,962	155	1,868	488	91	1,677
Columbiana.....	17,832	185,319	19,603	372	4,283	545	60	1,288
Coshocton.....	19,987	154,816	21,458	698	7,954	1,561	106	1,624
Cuyahoga.....	3,562	36,649	4,649	245	2,973	557	7	1,07
Erie.....	12,442	21,869	12,398	537	8,844	1,078	363	7,083
Gauga.....	3,724	51,155	4,014	165	2,728	355	857	19,678
Harrison.....	9,223	111,963	9,826	107	1,491	162	14	205
Holmes.....	23,936	278,480	25,807	533	6,516	537	17	319
Huron.....	22,398	97,748	28,175	204	3,137	1,260	134	2,486
Jefferson.....	9,017	111,893	9,974	489	5,315	967	86	1,677
Knox.....	22,070	258,404	24,578	1,895	27,973	3,684	10	1,779
Lake.....	2,536	34,731	2,225	492	6,105	689	483	3,614
Lorain.....	7,340	48,838	19,070	173	3,740	572	2	30
Mahoning.....	8,842	85,934	11,596	116	1,737	431	210	4,276
Medina.....	11,945	65,952	20,870	232	2,945	1,066	154	2,370
Portage.....	15,866	163,683	18,018	177	2,229	497	589	13,347
Richland.....	21,439	102,776	24,611	1,733	21,693	4,582	77	1,235
Stark.....	35,468	374,054	37,596	335	3,657	443	72	1,725
Summit.....	15,099	178,948	17,356	178	2,170	465	73	1,855
Tumbull.....	5,679	55,817	8,405	188	3,288	519	1,764	40,089
Tuscarawas.....	19,792	184,865	24,082	766	9,363	1,111	37	400
Wayne.....	34,443	154,012	41,284	279	2,308	1,854	23	707
Totals.....	357,861	2,988,831	430,199	12,252	154,630	26,665	9,240	199,160
State Totals.....	1,349,436	10,856,948	1,616,179	86,066	1,138,125	185,473	14,814	283,476

AGRICULTURAL STATISTICS—Continued.

NORTHEAST SECTION—Continued.

Counties.	Oats			Winter Barley.			Spring Barley.		
	Acres sown 1912.	Bushels produced 1912.	Acres (estimated) sown for 1913.	Acres sown 1912.	Bushels produced 1912.	Acres (estimated) sown for 1913.	Acres sown 1912.	Bushels produced 1912.	Acres sown for 1913.
Ashland.....	22,901	844,741	21,310	28	763	25	74	1,610	80
Ashabula.....	27,761	1,023,241	30,892	15	25	3	33	548	38
Carroll.....	13,419	451,955	13,620						
Columbiana.....	20,677	756,860	20,072	4				2	20
Coshocton.....	10,718	331,304	11,367					4	
Cuyahoga.....	12,430	545,418	12,412	7	100	2	25	825	30
Erie.....	18,293	972,917	14,412	40	850	72	761	22,634	808
Geauga.....	15,929	640,159	17,539	11	5	10	5	100	17
Harrison.....	8,570	272,843	7,893				7	118	22
Holmes.....	17,955	560,383	17,655					110	
Huron.....	33,545	1,450,258	32,678	15	390	15	161	4,840	328
Jefferson.....	10,372	330,551	10,579		20	40	4	40	7
Knox.....	8,518	318,077	7,836	25	680	11	9	190	16
Lake.....	17,759	536,690	6,922	14	484	29	23	310	11
Lorain.....	26,979	1,158,254	26,907	8	192	13	420	11,557	337
Mahoning.....	16,901	641,535	17,212						
Medina.....	27,981	1,266,507	23,303				53	1,493	121
Portage.....	23,611	946,526	25,015				31		35
Richland.....	29,055	1,190,619	28,576	36	373	28	26	1,000	8
Stark.....	30,870	1,266,037	30,983				2	644	10
Summit.....	18,336	773,942	19,180				10	80	11
Tumbull.....	23,006	870,709	23,504					290	
Tuscarawas.....	18,948	589,378	18,317						
Wayne.....	38,311	1,616,480	30,197	50	1,083	17	32	602	35
Totals.....	493,375	19,385,322	466,351	258	4,935	277	1,682	47,087	1,944
State Totals.....	1,895,260	80,146,974	1,610,196	2,627	56,851	2,932	36,608	1,174,833	41,457

AGRICULTURAL STATISTICS—Continued.

NORTHEAST SECTION—Continued.

Counties.	Corn.		Ensilage Corn.		Broom Corn.		Sugar Corn.		
	Acres planted 1912.	Bushels. (shelled) produced 1912.	Acres planted (estimated) for crop of 1913.	Acres planted 1912.	Acres planted (estimated) for crop of 1913.	Acres planted 1912.	Pounds broom brush produced 1912.	Acres planted 1912.	Tons produced 1912.
Ashland.....	25,127	907,921	26,127	244	207				
Antabula.....	514,535	16,720	6,560	381	6,372			31	34
Carroll.....	13,683	535,505	12,649	384	384				
Columbiana.....	16,746	590,936	16,178	3,449	3,493	3		13	19
Coshocton.....	25,047	979,397	22,784	115	108			17	141
Cuyahoga.....	6,863	203,618	6,577	2,511	2,576	1	1	63	280
Erie.....	17,558	684,786	16,042	485	401	25	10,700	51	57
Geauga.....	8,270	248,632	8,632	5,690	5,915			33	113
Harrison.....	11,882	531,725	10,994	308	333				
Holmes.....	22,511	848,333	23,047	153	99				
Huron.....	34,418	1,274,216	34,488	703	642	3	1,500	8	400
Jefferson.....	9,521	383,918	9,102	482	439			48	138
Knox.....	32,930	1,353,660	30,941	241	237				
Lake.....	5,855	217,806	5,744	920	1,074			371	656
Lorain.....	20,725	667,335	17,898	4,705	4,377			23	11
Mahoning.....	16,626	413,110	12,049	2,800	2,609			15	23
Medina.....	21,206	777,713	19,559	1,797	1,512			1	1
Portage.....	16,634	497,045	16,645	4,480	4,788			23	67
Richland.....	36,635	1,146,805	31,727	781	860			2	2
Stark.....	28,865	1,140,486	30,648	1,442	1,485			8	6
Summit.....	14,121	472,446	14,980	3,191	2,956			30	64
Trembui.....	16,564	493,600	15,692	5,071	4,800			4	5
Tuscarawas.....	19,751	739,810	18,801	551	486			15	27
Wayne.....	38,553	1,363,691	40,167	480	495			2	0
Totals.....	475,224	16,986,419	458,193	47,550	46,738	32	12,201	763	2,164
State Totals.....	3,161,288	127,725,069	2,988,115	69,738	66,784	282	65,049	18,617	49,165

AGRICULTURAL STATISTICS—Continued.
NORTHEAST SECTION—Continued.

Counties.	Tomatoes.		Peas.		Irish Potatoes.		Sweet Potatoes.	
	Acres planted 1912.	Bushels produced 1912.	Acres planted 1912.	Pounds produced 1912.	Acres planted 1912.	Bushels produced 1912.	Acres planted 1912.	Bushels produced 1912.
Ashtabula.....	1	100	3	4,600	864	92,121	883	—
Ashtabula.....	107	17,425	1	—	3,618	379,196	3,486	—
Carroll.....	—	—	—	—	583	71,044	508	—
Columbiana.....	4	970	2	4,400	2,475	248,976	2,307	—
Coshocton.....	1	1,042	5	12,550	1,048	87,980	1,113	40
Cuyahoga.....	108	24,973	21	8,725	6,840	512,290	5,919	2
Erie.....	62	15,070	—	—	4,360	346,712	3,534	—
Geauga.....	8	1,600	9	1,500	2,796	278,008	3,087	—
Harrison.....	5	360	—	—	134	15,194	57	—
Holmes.....	—	—	—	—	653	50,498	699	—
Huron.....	1	125	292	347,300	1,703	193,115	1,873	—
Jefferson.....	33	8,355	10	13,700	491	40,160	453	40
Knox.....	—	—	—	—	588	80,412	567	75
Lake.....	62	3,693	—	5,500	1,806	187,792	1,769	—
Lorain.....	94	18,775	2	800	2,910	311,362	2,949	—
Mahoning.....	66	9,731	—	—	2,396	273,592	2,516	—
Medina.....	2	250	—	—	3,035	281,325	2,925	—
Portage.....	4	433	3	1,500	6,255	493,912	5,810	—
Richland.....	4	150	1	2,000	2,079	287,638	2,433	—
Stark.....	25	4,090	—	—	3,289	344,543	3,438	—
Summit.....	24	4,795	8	59,820	3,176	289,398	3,397	—
Tuscarawas.....	15	1,887	8	3,050	3,338	332,666	3,165	50
Wayne.....	52	14,520	1	3,400	1,595	149,755	1,458	11
Wayne.....	5	—	—	—	3,388	338,128	3,257	—
Totals.....	680	128,344	373	469,149	58,420	5,685,927	57,613	216
State Totals.....	6,408	1,076,630	3,919	5,681,302	104,812	10,579,701	103,302	29,692

AGRICULTURAL STATISTICS—Continued.
NORTHEAST SECTION—Continued.

Counties.	Onions.		Meadow.		Clover.			
	Acres planted 1912.	Bushels produced 1912.	Acres in grass (other than clover) 1912.	Tons of hay produced 1912.	Acres grown 1912.	Tons of hay produced 1912.	Bushels of seed produced 1912.	Acres plowed under for manure 1912.
Ashland.....	18	5,160	34,347	64,784	13,808	15,170	1,873	53
Ashabula.....	67	36,866	52,603	65,868	2,167	3,264	243	12
Carrill.....	1	100	24,644	33,936	3,485	3,985	1,203	11
Columbiana.....	1	268	42,752	45,724	6,166	8,446	477	4
Conneaut.....	20	1,875	36,934	42,278	3,402	4,003	1,100	25
Cuyahoga.....	50	4,460	18,755	23,447	1,511	2,158	735	11
Erie.....	11	1,745	11,390	12,087	2,999	3,068	89	274
Geauga.....			24,004	32,425	2,418	3,899	1,871	24
Harrison.....			34,188	33,913	1,709	1,871	488	5
Holmes.....			23,444	26,926	9,071	13,482	1,677	18
Huron.....	23	33,311	33,311	24,617	14,375	13,284	2,970	96
Lake.....	8	26,552	24,579	28,650	3,246	3,760	619	14
Lorain.....	822	1,812	10,051	13,441	3,574	4,601	538	38
Madison.....	10	233,305	32,443	38,476	1,086	1,692	100	43
Maconing.....	10	2,700	32,458	45,947	3,481	4,732	169	37
Medina.....	30	7,500	34,577	45,937	10,710	18,316	1,572	6
Portage.....	264	111,492	31,588	35,082	19,302	15,230	753	47
Richland.....	3	470	28,770	33,409	15,862	11,034	3,284	76
Stark.....	77	28,860	46,770	53,503	7,968	11,034	9,599	278
Summit.....	38	4,109	21,573	27,614	6,586	8,439	484	8
Tumbull.....	10	2,915	61,351	60,022	1,776	2,635	622	36
Tuscarawas.....	7	2,760	41,796	45,264	4,462	6,254	2,246	48
Wayne.....	272	123,230	36,508	48,628	27,230	32,098	4,831	271
Totals.....	1,736	575,342	779,846	943,338	156,108	192,286	25,695	1,478
State Totals.....	6,427	2,050,998	2,280,813	2,579,413	446,207	441,560	155,269	57,265

AGRICULTURAL STATISTICS—Continued.
NORTHEAST SECTION—Continued.

Counties.	Alfalfa.		Flax.		Tobacco.	
	Acres grown in 1912.	Tons of hay in 1912.	Acres sown 1912.	Bushels of seed 1912.	Pounds of fibre 1912.	Pounds produced 1912.
Ashland.....	14	20	612	5,523	265,200	
Ashtabula.....	5	13				
Carroll.....	80	82				
Columbiana.....	106	203				
Coshocton.....	121	277				
Cuyahoga.....	18	18				
Erie.....	249	505				
Geauga.....	26	75	12	54		
Harrison.....	366	678	5	73		
Holmes.....						
Huron.....	72	128	616	6,560	235,900	
Jefferson.....	191	423				
Knox.....	203	633	1	12	1	
Lake.....	255	691				5,800
Lorain.....	55	135	118	1,626	112,000	2,880
Mahoning.....	9	32				
Medina.....	54	82	45	472	16,870	117,633
Portage.....	51	145	3		1,800	
Richland.....	28	71	73	1,040	19,800	
Stark.....	22	60				
Summit.....	152	504	2			
Trumbull.....	45	108				
Tuscarawas.....	47	108				
Wayne.....	51	233	26	165		147,800
Totals.....	2,169	5,229	1,513	15,524	651,571	274,113
State Totals.....	27,699	56,140	1,749	16,843	657,611	55,828,741

AGRICULTURAL STATISTICS—Continued.
NORTHEAST SECTION—Continued.

Counties.	Creameries.		Cheese Factories.		Milk Condenseries.		Dairies.		Milk.		Butter.	
	Number 1912.		Number 1912.		Number 1912.		Number, four or more cows.		Gallons sold for family use 1912.		Pounds made in home dairies 1912.	Pounds made in factories and creameries 1912.
Ashland.....			2		2		75		99,805		418,520	40,760
Ashtabula.....		2	1		1	4	972		20,434,978		509,853	80,250
Carroll.....							604		44,890		564,551	168,020
Columbiana.....		2	1		1	2	10,634		1,452,551		673,705	622,167
Coshocton.....		1					770		158,086		568,819	186,820
Cuyahoga.....							659		2,828,422		457,491	48,660
Erie.....			2		2		1		819,910		328,794	10,010
Geauga.....		3	2				359		3,123,401		50,776	11,000
Harrison.....							67		102,535		504,098	32,342
Holmes.....			16				355		134,040		562,290	133,031
Huron.....							410		386,165		578,416	164,330
Jefferson.....							114		379,645		545,965	38,586
Knox.....							69		240,650		637,334	8,650
Lake.....						1	382		711,977		244,613	99,595
Lorain.....			3				7		6,261,751		286,789	70,040
Mahoning.....		10	1				1,430		2,037,993		677,225	330,079
Medina.....		80	12			16	1,816		1,049,618		368,537	718,534
Portage.....		1	1			2	3,421		3,311,281		915,088	55,206
Richland.....							368		830,025		559,972	173,320
Stark.....		5	10			1	276		2,286,769		923,891	170,861
Summit.....		1				1	1,033		3,469,252		375,818	228,360
Tuscarawas.....		3	4			1	1,819		1,975,684		583,524	173,916
Wayne.....			11				241		486,343		594,735	39,075
			5				2,099		568,755		890,711	283,890
Totals.....	108		70			28	27,951		53,094,426		12,822,315	3,887,972
State Totals.....	142		93			31	54,457		82,714,922		45,365,502	11,330,578

AGRICULTURAL STATISTICS—Continued.
NORTHEAST SECTION—Continued.

Counties.	Cheese.		Eggs		Sorghum.		
	Pounds made in home dairies 1912.	Pounds made in factories and creameries 1912.	Number dozen produced 1912.	Number dozen shipped beyond state 1912.	Acres planted 1912.	Pounds of sugar 1912.	Gallons of syrup 1912.
Ashland.....		43,930	892,014	120			
Ashtabula.....	2,500	824,014	1,150,311	12			
Carroll.....	4,000		818,110				
Columbiana.....	92,270	200,079	984,840	58,409			40
Coshocton.....		20,665	995,430	50	4		142
Cuyahoga.....			665,053	1,000			
Erie.....	2,000	1,630	423,829				
Geauga.....		116,970	741,989	2,000			
Harrison.....	400		762,803	8,510	2		43
Holmes.....	15,510	538,497	1,384,225				
Huron.....	4,700		1,030,026		15		5
Jefferson.....	600		497,460		17		33
Knox.....	40,935		1,059,050			100	
Lake.....	33,350		311,078				
Lorain.....	41,295	231,050	1,099,867				20
Mahoning.....	54,800	146,787	1,273,259		3		
Medina.....	6,450	134,693	1,196,778				140
Portage.....	128,768	77,315	1,130,387	100	782		
Richland.....	65		940,644	1,110			
Stark.....	9,410	533,649	1,047,769	8,032	1	10	60
Summit.....			658,856	100			
Trumbull.....	189,458	149,674	1,332,148	32,012			
Tuscarawas.....	58,275	470,220	737,864	2,600	3		553
Wayne.....	16,215	182,090	1,745,550	7,700	2		723
Totals.....	701,001	3,700,263	22,879,640	121,755	829	110	1,759
State Totals.....	1,085,768	4,894,668	83,306,963	1,050,038	2,168	1,768	72,899

AGRICULTURAL STATISTICS—Continued.
NORTHEAST SECTION—Continued.

Counties.	Maple Products.		Sugar Beets.				Bees.	Honey.
	No. of trees from which sugar or syrup was made 1913.	Pounds of sugar 1913.	Gallons of syrup 1913.	Acres 1911.	Acres 1912.	Tons produced 1911.	Tons produced 1912.	Pounds of honey 1912.
Ashland	62,909	267	10,301					1,254
Ashland	233,135	5,935	36,723				113	34,606
Carroll	405		182				178	2,055
Columbia	19,511	893	2,039				103	1,385
Columbia	430		137				129	948
Cuyahoga	63,115	120	11,069				111	3,017
Erie	9,125		1,694				341	6,378
Geauga	643,605	5,320	117,668				143	4,430
Harrison	4,265	15	6				181	1,237
Holmes	54,896	697	1,363				281	5,590
Huron	21,817	45	8,166	11	18	18	285	6,615
Jefferson	38,427	480	100				186	2,925
Lake	63,408	681	4,690	1		10	148	2,997
Lake	60,835	1,640	5,289				149	1,440
Madison	190,564	2,800	10,331				112	1,893
Medina	308,915	8,801	9,406	25			102	1,175
Portage	45,130	288	31,243				139	3,464
Richland	7,435	176	70,469	15	2		180	2,320
Stark	40,163	10	8,030				136	2,000
Summit	196,384	1,016	8,643		5		289	8,218
Tuscarawas	11,403	211	34,988				184	5,318
Wayne		75	2,210				391	1,347
Totals	2,073,536	26,438	376,751	52	25	28	4,868	106,504
State Totals	2,474,043	54,488	474,289	9,841	23,921	112,328	240,292	281,890

AGRICULTURAL STATISTICS—Continued.
NORTHEAST SECTION—Continued.

Counties.	Commercial Fertilisers.			Grapes and Wine.			Gallons of Wine.	Orchards.	
	Pounds used during 1912.	Cost of fertiliser used during 1912.	Estimated pounds to be used during 1913.	Acres (new) vineyard 1912.	Whole No. of acres in vineyard 1912.	Pounds of grapes gathered in 1912.		Acres occupied 1912.	Bushels produced 1912.
Ashland.....	4,618,325	\$41,698	4,336,150						109,125
Ashtrabula.....	7,706,970	85,322	7,663,480	39	344	873,250	450	2,262	243,130
Carroll.....	2,511,665	27,723	2,300,510					2,701	90,541
Columbiana.....	5,242,400	56,668	4,823,950					3,609	324,353
Coshocton.....	3,288,125	31,941	2,545,050					6,058	178,068
Cuyahoga.....	5,118,629	60,254	4,530,375	21	497	100	6,472	4,727	76,580
Erie.....	2,879,368	29,188	2,463,300	13	1,250	4,638,550	7,917	2,185	86,189
Geauga.....	4,176,190	48,616	4,340,775	17	93	2,885,700		1,586	188,489
Harrison.....	2,936,425	14,876	993,055			99,030		1,964	106,980
Holmes.....	3,823,300	40,320	3,757,500			1,400	30	3,186	283,960
Huron.....	6,963,430	68,509	7,785,900					3,005	174,245
Jefferson.....	1,590,550	16,143	1,406,950					2,791	99,590
Knox.....	5,327,375	50,770	4,349,650					3,002	72,401
Lake.....	2,217,690	29,663	1,487,220	77	816	1,620,317	195,120	2,245	125,983
Lorain.....	6,089,565	65,898	5,345,550	39	1,076	3,639,500	2,345	1,596	187,763
Madison.....	4,953,950	55,764	4,768,340					3,113	162,804
Medina.....	8,035,872	98,273	7,033,367	8	38	124,090	146	2,716	151,669
Portage.....	6,683,876	76,613	5,911,894			1,500		3,106	180,365
Richland.....	4,498,460	43,568	4,593,548				13	4,319	246,958
Stark.....	6,858,816	105,966	6,064,375				525	5,084	137,683
Summit.....	4,525,375	45,532	4,271,775	4	9	47,075	31	2,189	98,407
Tumbull.....	5,220,914	58,825	5,303,360	6	6	3,200		3,769	136,953
Tuscarawas.....	2,996,495	25,893	1,831,200	18	3	12,600	658	4,853	97,390
Wayne.....	10,194,780	106,531	9,934,579			15,390	340	3,913	236,366
Totals.....	118,388,513	\$1,284,434	107,769,353	• 242	4,136	13,986,752	214,047	76,319	3,801,961
State Totals.....	303,507,895	\$3,481,509	254,672,412	402	6,378	18,435,748	287,062	219,968	8,401,838

AGRICULTURAL STATISTICS—Continued.
NORTHEAST SECTION—Continued.

Counties.	Orchards—Continued.							
	Peaches.		Pears.		Cherries.		Plums.	
	Acres occupied 1912.	Bushels produced 1912.	Acres occupied 1912.	Bushels produced 1912.	Acres occupied 1912.	Bushels produced 1912.	Acres occupied 1912.	Bushels produced 1912.
Ashland.....	65	1,038	2	587	9	923	1	188
Ashtabula.....	641	44	45	1,006	28	487	27	1,088
Carroll.....	72	1,810	76	347	37	409	12	802
Columbiana.....	132	1,247	49	3,120	26	1,262	17	1,950
Coshocton.....	324	5,300	37	3,500	2	90	2	248
Cuyahoga.....	26	5	82	3,951	34	1,366	21	369
Erie.....	594	3,377	68	4,078	65	2,818	10	1,050
Geauga.....	68	203	129	8,175	7	71	14	985
Harrison.....	121	2,470	20	3,509	2	527	7	617
Holmes.....	106	2,439		200	5	875	3	440
Huron.....	94	85	12	1,133	9	98	3	135
Jefferson.....	149	1,685	216	835	6	513	12	627
Knox.....	69	1,014	3	200	57	200	2	337
Lake.....	704	555	247	6,961	55	1,145	42	2,391
Lorain.....	406	152	34	1,370	4	575	26	1,000
Mahoning.....	79	170	38	3,622	8	1,289	41	1,850
Medina.....	33	172	50	713	44	781	63	1,160
Portage.....	9	150	12	693	25	718	7	315
Richland.....	54	3,913	59	3,070	17	1,632	23	2,300
Stark.....	76	6,606	15	2,318	13	1,689	10	1,451
Summit.....	62	247	23	1,348	10	1,534	9	1,100
Trumbull.....	114	182	37	685	18	513	19	1,123
Tuscarawas.....	211	5,199	16	1,511	8	1,114	13	1,032
Wayne.....	41	754	22	2,985	24	2,042	12	1,575
Totals.....	4,250	38,787	1,292	56,062	513	22,671	396	24,113
State Totals.....	19,160	696,993	3,755	200,417	1,562	55,523	1,124	70,260

AGRICULTURAL STATISTICS—Continued.
NORTHEAST SECTION—Continued.

Counties.	Orchards.		Lands Owned in 1912.							Total number acres owned 1912.
	Other Small Fruits.		Number of acres cultivated.	Number of acres meadow.	Number of acres pasture.	Number of acres woodland.	Number of acres lying waste.			
	Acres occupied 1912.	Bushels produced 1912.								
Ashland.....	12	650	97,081	40,363	49,704	31,415	4,640	223,203		
Ashabula.....	110	5,069	76,891	56,807	141,968	39,585	8,592	323,843		
Carroll.....	13	1,495	40,599	38,187	93,959	19,482	7,271	199,498		
Columbiana.....	201	7,075	77,459	49,408	88,772	22,393	10,310	248,341		
Coshocton.....	10	495	58,659	34,609	146,501	37,552	7,933	293,066		
Cuyahoga.....	247	13,450	41,914	20,213	37,867	10,255	8,980	119,229		
Erie.....	261	7,685	65,752	13,113	15,781	7,722	6,530	108,898		
Geauga.....	26	1,280	42,268	27,696	87,934	35,534	2,398	195,830		
Harrison.....	12	847	31,514	35,877	125,172	21,197	5,430	219,190		
Holmes.....	3	650	167,362	22,230	15,909	41,608	7,603	254,712		
Huron.....	29	1,265	108,622	46,238	80,992	25,412	5,920	267,184		
Jefferson.....	25	1,622	37,047	30,121	82,676	23,659	11,599	185,102		
Knox.....	22	1,928	66,405	45,440	106,256	27,909	3,992	248,000		
Lake.....	129	5,935	29,476	11,889	26,793	11,913	3,980	85,963		
Lorain.....	49	8,640	79,174	36,504	74,173	19,961	3,930	213,742		
Madison.....	58	4,041	66,298	44,033	76,228	18,671	2,797	198,586		
Medina.....	59	1,043	82,273	49,452	66,213	25,643	4,237	222,398		
Portage.....	24	1,230	91,141	32,474	99,131	33,123	9,949	265,818		
Richland.....	17	1,605	120,550	40,400	46,255	38,484	3,611	249,300		
Stark.....	43	3,401	174,729	25,290	42,047	33,123	7,975	270,657		
Summit.....	53	3,547	89,711	20,765	43,145	20,616	7,609	176,845		
Trumbull.....	40	3,695	68,268	55,211	140,108	15,615	5,523	304,419		
Tuscarawas.....	75	1,947	68,503	50,103	112,424	35,319	9,500	272,361		
Wayne.....	7	954	174,904	35,281	43,975	31,696	8,337	294,193		
Totals.....	1,677	81,209	1,956,590	841,474	1,843,983	626,595	156,656	5,440,198		
State Totals.....	4,182	201,659	7,877,761	2,548,031	6,204,114	2,076,612	678,808	19,675,679		

AGRICULTURAL STATISTICS—Continued.

NORTHEAST SECTION—Continued.

Counties.	Lime Kilns or Factories.	Tile Factories.	Horses.	Cattle.		
				Beef cattle owned in April, 1913.	Milch cows owned in April, 1913.	All other cattle owned April, 1913.
	Number of 1912.	Number of 1912.	Number owned in April, 1913.			Total number owned in April, 1913.
Ashland.....			6,295	298	6,628	10,743
Ashabula.....			9,542	78	18,537	26,518
Carroll.....			5,018	573	6,575	11,162
Columbiana.....			8,200	70	13,572	17,546
Coshocton.....	3		5,704	604	6,409	12,167
Cuyahoga.....			4,571	73	7,140	11,858
Erie.....			4,567	89	4,066	8,779
Geauga.....			5,510	50	12,904	18,333
Harrison.....			4,652	694	5,530	10,376
Holmes.....			7,359	728	8,843	13,565
Huron.....		1	8,331	238	7,586	11,590
Jefferson.....	10		3,954	114	5,796	8,333
Knox.....			7,314	1,697	7,048	13,072
Lake.....			4,970	6	5,638	7,884
Lorain.....	1		7,101	100	11,233	15,210
Mahoning.....		1	6,756	528	10,317	13,571
Medina.....		13	7,470	94	9,758	13,760
Portage.....			9,251	91	14,451	20,177
Richland.....			7,686	219	9,118	13,626
Stark.....	8		10,731	225	15,479	20,335
Summit.....			6,239	145	9,988	14,111
Trembull.....			8,968	159	17,095	24,020
Tuscarawas.....		2	6,805	410	10,768	16,732
Wayne.....			11,315	460	12,733	20,064
Totals.....	22	17	168,519	7,743	237,282	346,336
State Totals.....	51	180	657,142	49,852	675,902	1,131,550

AGRICULTURAL STATISTICS—Continued.
NORTHEAST SECTION—Continued.

Counties.	Sheep.				Wool.		Hogs.	
	Number owned April, 1918.	Killed by dogs 1912.	Value.	Intured by dogs 1912.	Value.	Pounds shorn 1912.	Total number owned in April, 1918.	For summer markets 1198.
Ashland.....	28,413	114	\$344	24	\$58	195,493	11,288	3,465
Ashtabula.....	6,047	147	648	42	118	44,832	4,503	902
Carroll.....	42,223	207	789	37	90	338,904	6,435	1,542
Columbiana.....	16,944	282	802	89	105	122,136	7,690	1,578
Coshocton.....	72,355	634	2,102	61	169	588,237	11,341	4,610
Cuyahoga.....	2,000	108	761	93	338	16,146	1,088	227
Erie.....	6,678	71	313	59	185	46,470	5,950	1,652
Geauga.....	3,063	51	253	10	30	22,032	2,852	362
Harrison.....	92,865	174	540	71	121	720,481	5,760	515
Holmes.....	21,077	269	1,244	116	232	106,040	14,627	3,745
Huron.....	42,985	262	1,267	44	219	388,868	11,634	4,252
Jefferson.....	32,953	579	1,749	143	343	265,910	4,306	264
Knox.....	81,936	140	472	46	166	723,054	18,210	9,655
Lake.....	2,638	102	470	20	158	16,235	2,263	352
Lorain.....	9,934	145	748	55	116	94,530	4,613	1,231
Mahoning.....	13,681	174	710	18	48	94,408	5,551	101
Medina.....	12,481	125	608	77	280	97,217	6,611	2,105
Portage.....	12,732	165	1,110	59	511	100,064	6,036	1,045
Richland.....	28,151	382	1,896	133	396	209,176	14,617	3,184
Stark.....	7,981	108	398	68	270	50,267	14,032	984
Summit.....	2,618	95	458	6	15	15,791	5,639	393
Trumbull.....	10,069	847	89	89	301	68,001	5,005	420
Tuscarawas.....	20,816	331	1,233	233	340	159,289	10,246	1,595
Wayne.....	12,859	217	1,251	59	192	85,216	20,428	5,348
Totals.....	578,439	5,061	\$21,024	1,657	\$4,795	4,568,855	200,105	49,522
State Totals.....	1,768,017	15,643	\$65,574	6,324	\$17,952	12,959,110	1,354,861	\$452,287

AGRICULTURAL STATISTICS—Continued.
NORTHEAST SECTION—Concluded.

Counties.	Domestic Animals Died From Diseases in 1912.							
	Horses.		Cattle.		Sheep.		Hogs.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Ashland.....	90	\$9,710	79	\$3,978	330	\$1,137	361	\$3,489
Ashtabula.....	254	17,360	222	9,553	162	1,867	136	1,438
Carroll.....	50	6,005	53	1,834	401	1,174	71	857
Columbiana.....	149	14,895	163	8,296	196	813	336	4,578
Coshocton.....	92	9,200	89	2,574	668	2,013	221	1,909
Cuyahoga.....	125	9,065	147	5,915	62	278	70	865
Erie.....	91	8,007	54	1,940	207	767	464	4,867
Geauga.....	120	9,900	178	10,390	147	537	47	728
Harrison.....	78	8,690	67	2,506	607	1,442	45	578
Holmes.....	132	21,579	132	1,841	453	1,795	265	2,450
Huron.....	155	16,310	166	6,014	853	2,870	229	2,578
Jefferson.....	152	5,760	70	2,720	231	589	132	1,353
Knox.....	89	11,030	68	2,720	562	1,668	174	1,363
Lake.....	114	8,120	66	2,542	78	1,106	66	747
Lorain.....	116	15,060	140	7,204	77	312	100	1,140
Mahoning.....	96	10,301	149	4,110	126	537	195	1,880
Medina.....	72	7,999	89	3,448	94	374	116	1,538
Portage.....	263	22,765	193	8,634	218	891	140	1,682
Richland.....	128	14,485	118	3,801	678	2,225	499	4,963
Stark.....	238	21,480	245	9,569	260	1,010	507	6,082
Summit.....	169	16,705	174	7,320	69	267	532	4,813
Trumbull.....	189	13,737	198	8,457	257	608	210	2,364
Tuscarawas.....	126	12,640	167	6,125	358	1,082	176	2,026
Wayne.....	240	26,088	214	1,624	370	1,643	456	4,995
Totals.....	3,211	\$316,921	3,241	\$125,389	7,404	\$24,005	5,538	\$58,201
State Totals.....	14,156	\$1,411,478	12,220	\$436,719	35,595	\$125,767	168,383	\$1,282,464

AGRICULTURAL STATISTICS—Continued.

SOUTHEAST SECTION

Counties.	Wheat.		Rye.		Buckwheat.	
	Acres sown for harvest 1912.	Bushels produced 1912.	Acres sown for harvest 1913.	Acres sown for 1912.	Acres sown for 1913.	Bushels produced 1912.
Athens.....	6,617	88,377	6,903	175	2,005	134
Belmont.....	13,089	121,821	13,276	709	8,559	1,587
Fairfield.....	43,672	461,281	46,960	469	5,622	1,587
Gallia.....	9,572	85,285	7,827	354	4,186	950
Guernsey.....	10,438	110,552	11,530	548	5,280	363
Hocking.....	9,960	112,454	10,087	189	2,308	799
Jackson.....	6,793	61,890	7,113	143	1,497	196
Lawrence.....	1,986	22,146	1,888	131	783	232
Licking.....	28,423	247,143	29,852	2,863	37,611	62
Meigs.....	10,206	118,643	10,015	171	2,183	6,203
Monroe.....	11,663	114,087	11,714	804	9,952	283
Morgan.....	10,237	131,135	10,661	123	2,163	1,140
Muskingum.....	20,303	235,759	20,772	398	5,362	149
Noble.....	9,691	108,760	10,444	105	1,214	673
Perry.....	13,846	170,971	14,086	324	3,864	143
Vinton.....	6,332	65,603	6,335	70	685	404
Washington.....	16,841	212,303	17,932	485	7,840	90
Totals.....	256,669	2,468,210	236,495	8,081	100,815	347
						2,774
State Totals.....	1,349,436	10,856,948	1,616,179	86,066	1,138,125	185,473
						14,814
						283,476

AGRICULTURAL STATISTICS—Continued.
SOUTHEAST SECTION—Continued.

Counties.	Oats.			Winter Barley.			Spring Barley.		
	Acres sown 1912.	Bushels produced 1912.	Acres (estimated) sown for 1913.	Acres sown 1912.	Bushels produced 1912.	Acres (estimated) sown for 1913.	Acres sown 1912.	Bushels produced 1912.	Acres sown for 1913.
Athens.....	2,130	50,655	2,494						
Belmont.....	11,552	285,432	12,526	59	25	5	21	310	10
Fairfield.....	5,576	413,802	2,439	18	520	21	4	20	6
Gallia.....	3,210	58,763	4,467						16
Guernsey.....	6,507	182,046	7,086	36	747	25	20	80	2
Hocking.....	1,684	35,434	1,940						
Jackson.....	1,576	29,636	2,177			13			4
Lawrence.....	3,013	37,245	3,592						3
Licking.....	10,564	364,538	9,114	6	250	4	74	1,580	14
Meigs.....	2,511	56,663	2,853			2			
Monroe.....	7,810	187,879	8,945	1	30	4	1	25	3
Morgan.....	2,163	57,867	1,999						
Muskingum.....	5,345	140,823	5,323						
Noble.....	3,739	96,874	4,534	7	103	10	6	13	4
Perry.....	2,469	74,447	2,460			1		1	7
Vinton.....	1,476	32,353	2,161	5					
Washington.....	6,840	175,342	7,436					75	3
Totals.....	78,165	2,277,829	80,846	132	1,675	85	138	2,104	71
State Totals.....	1,895,260	80,146,974	1,610,196	2,627	56,851	2,932	36,608	1,174,833	41,457

AGRICULTURAL STATISTICS—Continued.
SOUTHEAST SECTION—Continued.

Counties.	Corn.		Earlilage Corn.		Broom Corn.		Sugar Corn.	
	Acres planted 1912.	Bushels (shelled) produced 1912.	Acres planted (estimated) for crop of 1913.	Acres planted 1912.	Acres planted 1912.	Pounds broom brush produced 1912.	Acres planted 1912.	Tons produced 1912.
Athens.....	11,542	426,634	11,785	268	222		3	
Belmont.....	19,356	799,076	17,273	1,324	1,196	200	132	55
Fairfield.....	49,354	2,395,400	51,746	90	85	280	389	942
Gallia.....	19,816	521,372	20,887	104	157		5	13
Guernsey.....	16,787	614,752	15,066	683	630	500	21	147
Hocking.....	11,265	342,524	10,746	31	22		1	
Jackson.....	12,263	315,210	11,971	215	292	200	2	60
Lawrence.....	12,295	261,759	10,988	53	49		61	103
Licking.....	53,578	2,048,399	46,267	1,411	1,210	1,160	62	271
Meigs.....	12,911	395,436	11,891	345	399	86		
Monroe.....	16,131	553,397	15,485	121	209		2	4
Morgan.....	12,676	523,581	12,573	393	333			
Muskingum.....	29,377	1,145,280	23,768	554	533		100	553
Noble.....	15,111	620,161	14,642	49	48	400		
Perry.....	15,874	614,932	16,238	102	123	30	9	12
Vinton.....	11,006	279,558	10,450	15	15			
Washington.....	18,918	674,888	17,061	340	338	560	91	300
Totals.....	337,261	12,392,359	318,827	6,094	5,861	41	878	2,480
State Totals.....	3,161,288	127,725,069	2,988,115	69,738	66,784	282	18,617	49,165

AGRICULTURAL STATISTICS—Continued.

SOUTHEAST SECTION—Continued.

Counties.	Tomatoes.		Peas.		Irish Potatoes.		Sweet Potatoes.	
	Acres planted 1912.	Bushels produced 1912.	Acres planted 1912.	Pounds produced 1912.	Acres planted 1912.	Bushels produced 1912.	Acres planted 1912.	Bushels produced 1912.
Athens.....	2	825			419	36,039	420	
Belmont.....	114	20,580	1	1,300	637	48,731	584	33
Barfield.....	54	4,704	141	255,757	654	68,859	587	700
Galla.....	48	2,570	138	184,600	90	9,323	86	60
Guernsey.....	1	20			307	23,375	208	
Hocking.....					37,611	37,611	430	
Jackson.....			13	12,500	124	25,493	101	
Lawrence.....	33	4,325	98	83,830	415	27,711	969	17,909
Licking.....	30	2,595	13	11,900	1,146	122,042	932	30
Meigs.....	101	7,116	652	2,185,770	538	45,786	551	455
Monroe.....	20	4,100	1	200	843	87,844	840	
Morgan.....	41	2,270	19	7,300	214	17,234	191	
Muskingum.....	116	22,870	2	460	617	65,763	629	1,015
Noble.....					635	58,239	565	
Perry.....					520	46,572	340	196
Vinton.....					288	17,410	267	
Washington.....	278	62,225	131	97,352	1,395	131,438	1,239	3,392
Totals.....	838	134,210	1,209	2,840,959	9,295	869,652	8,949	23,820
State Totals.....	6,408	1,076,630	3,919	5,681,302	104,812	10,579,701	103,302	29,692

AGRICULTURAL STATISTICS—Continued.
SOUTHEAST SECTION—Continued.

Counties.	Onions.		Meadow.		Clover.			
	Acres planted 1912.	Busbels produced 1912.	Acres in grass (other than clover) 1912.	Tons of hay produced 1912.	Acres grown 1912.	Tons of hay produced 1912.	Busbels of seed produced 1912.	Acres plowed under for manure 1912.
Athens.....			19,805	22,345	697	883	4	7
Belmont.....	1	189	29,109	28,231	3,567	4,392	985	176
Fairfield.....	9	1,137	43,310	49,746	4,331	5,081	1,620	77
Gallia.....			18,641	15,852	897	991	14	111
Guernsey.....			38,411	34,813	1,003	1,458	89	16
Hocking.....			14,772	13,136	557	566	32	38
Jackson.....		50	17,626	12,952	497	425	45	25
Lawrence.....	6	775	10,236	6,491	587	510	12	
Licking.....	9	3,125	61,996	71,550	1,424	1,644	302	100
Meigs.....		44	18,557	19,379	899	1,008	12	185
Monroe.....	1	170	25,510	23,725	1,475	1,791	480	24
Morgan.....			22,912	25,742	2,955	4,129	679	54
Muskingum.....	1	150	43,279	45,762	4,009	4,406	943	114
Noble.....			27,879	29,960	1,464	1,821	547	5
Perry.....		7	23,367	23,858	3,227	3,923	2,993	34
Vinton.....			14,076	10,421	328	325	17	
Washington.....		20	31,417	32,468	1,458	1,948	444	55
Totals.....	27	5,667	460,933	466,431	29,375	35,301	9,218	1,021
State Totals.....	6,427	2,050,993	2,280,813	2,579,413	446,207	441,560	155,269	57,365

AGRICULTURAL STATISTICS—Continued.
SOUTHEAST SECTION—Continued.

Counties.	Alfalfa.		Acres sown 1912.	Bushels of seed 1912.	Pounds of fibre 1912.	Acres planted 1912.	Tobacco. Pounds produced 1912.
	Acres grown 1912.	Tons of hay 1912.					
Athens.....	1,144	2,608					
Belmont.....	271	555	1	10		851	1,294,435
Fairfield.....	68	283					620
Gallia.....	29	50				1,219	988,766
Guernsey.....	100	185	1	10		69	89,870
Hocking.....	42	74					
Jackson.....	10	24					
Lawrence.....	12	30				402	304,623
Licking.....	193	320					
Meigs.....	26	63				13	11,220
Monroe.....	27	48				647	593,380
Morgan.....	268	652					
Muskingum.....	266	551	1	6		2	4,000
Noble.....	181	416				750	925,910
Perry.....							
Vinton.....	4	1					
Washington.....	262	737				15	18,740
Totals.....	2,903	6,627	3	26		3,968	4,202,564
State Totals.....	27,699	56,140	1,749	16,843	657,611	59,896	55,828,741

AGRICULTURAL STATISTICS—Continued.
SOUTHEAST SECTION—Continued.

Counties.	Creameries.	Cheese Factories.	Milk Condenseries.	Dairies.	Milk.	Butter.	
						Pounds made in home dairies 1912.	Pounds made in factories and creameries 1912.
Number 1912.	Number 1912.	Number 1912.	Number 1912.	Number, four or more cows.	Gallons sold for family use 1912.		
Athens.....				112	210,465	387,650	82,165
Belmont.....				244	815,750	836,802	52,750
Fairfield.....				835	282,562	619,274	128,320
Gallia.....	1			1	7,782	490,490	54,000
Guernsey.....				85	212,516	540,381	89,150
Hocking.....				18	55,520	218,420	
Jackson.....				11	90,558	328,795	7,870
Lawrence.....				60	145,144	293,351	10,125
Licking.....				2,308	993,387	808,135	567,055
Meigs.....	1			80	45,156	368,586	89,403
Monroe.....		20		87	79,435	495,520	10,250
Morgan.....				174	5,800	473,315	38,875
Muskingum.....				21	793,637	804,690	12,050
Noble.....	1			55	13,770	513,180	
Perry.....					60,870	383,060	145,000
Vinton.....					845	290,585	1,500
Washington.....				3		672,889	8,880
Totals.....	3	20		4,092	3,998,892	8,533,836	1,246,493
State Totals.....	142	93	31	54,457	82,714,922	45,365,502	11,330,578

AGRICULTURAL STATISTICS—Continued.

SOUTHEAST SECTION—Continued.

Counties.	Cheese.		Eggs.		Sorghum.		
	Pounds made in home dairies 1912.	Pounds made in factories and creameries 1912.	Number dozen produced 1912.	Number dozen shipped beyond state 1912.	Acres planted 1912.	Pounds of sugar 1912.	Gallons of syrup 1912.
Athens.....	250		700,431	800	5		22
Belmont.....	7,550		920,179	14,250	10		546
Fairfield.....			1,463,167	135	1		138
Gallia.....			840,764	150	111		8,837
Guernsey.....			606,135	3,690	14		1,045
Hocking.....			305,387		2		100
Jackson.....			390,393	100	32		2,766
Lawrence.....			282,355	4,923	223	350	17,307
Licking.....			1,308,413		4		308
Meigs.....	4,500		719,586	82,900	8		457
Monroe.....	2030		850,271	93,365	11	220	390
Morgan.....	208,930	342,360	1,077,355	100	2		75
Muskingum.....			1,085,698	795	3	80	295
Noble.....	65		1,023,787	224,915	30		2,703
Perry.....	50		550,845		2		305
Vinton.....	50		421,804		14	90	
Washington.....	6,381		1,215,967	1,190	18	265	1,827
Totals.....	317,726	344,410	13,914,257	427,313	496	1,005	37,131
State Totals.....	1,085,708	4,894,668	83,290,453	1,050,038	2,168	1,768	72,899

AGRICULTURAL STATISTICS—Continued.
SOUTHEAST SECTION—Continued.

Counties.	Maple Products.			Sugar Beets.			Bees.	Honey.
	No. of trees from which sugar or syrup was made 1913.	Pounds of sugar 1913.	Gallons of syrup 1913.	Acres 1911.	Acres 1912.	Tons produced 1911.	Tons produced 1912.	Pounds of honey 1912.
Athens	550		155				140	1,480
Belmont	820		200				231	2,986
Fairfield	1,746	115	687				172	1,242
Gallia	340		82		1		299	4,945
Guernsey			309				348	4,632
Hocking							92	465
Jackson							234	1,950
Lawrence				1	35	1	534	9,337
Licking	30,888		8,115				404	2,692
Meigs	25		10				186	1,694
Monroe							50	518
Morgan							40	460
Mustkingum	505		175				187	2,867
Noble							289	3,464
Perry	4,091		1,768				194	2,176
Vinton	50		20				103	1,290
Washington			50				201	2,324
Totals	39,016	115	11,551	1	36	1	3,684	44,441
State Totals	2,474,043	54,488	474,289	9,841	23,921	112,328	240,282	281,330

AGRICULTURAL STATISTICS—Continued.
SOUTHEAST SECTION—Continued.

Counties.	Commercial Fertilizers.			Grapes and Wine				Gallons of Wine.	Orchards.	
	Pounds used during 1912.	Cost of fertilizers used during 1912.	Estimated pounds to be used during 1913.	Acres (new) vineyard 1912.	Whole No. of acres in vineyard 1912.	Pounds of grapes gathered in 1912.	pressed in 1912.	Acres occupied 1912.	Bushels produced 1912.	Apples.
Athens.....	1,655,270	\$16,760	1,351,025	9	19	300	.....	3,977	216,853	.....
Belmont.....	2,297,560	24,155	1,615,425	.....	.....	37,050	100	4,130	262,903	.....
Fairfield.....	8,373,080	78,731	6,854,600	.....	1	3,100	.....	2,985	42,571	.....
Gallia.....	1,572,580	15,918	1,046,625	.....	.....	140	.....	5,620	65,325	.....
Guernsey.....	2,408,925	21,319	1,569,198	.....	.....	.....	.....	3,912	125,267	.....
Hocking.....	2,481,250	24,080	1,823,700	.....	.....	.....	.....	1,330	11,307	.....
Jackson.....	2,280,440	22,424	2,273,450	.....	.....	.....	.....	2,280	61,092	.....
Lawrence.....	2,220,136	22,458	1,68,000	.....	1	3,450	.....	6,168	419,382	.....
Licking.....	6,504,325	69,987	4,641,730	.....	.....	4,400	.....	3,511	63,208	.....
Mega.....	2,043,140	23,004	1,713,520	.....	.....	350	.....	3,580	163,660	.....
Monroe.....	2,086,351	21,417	1,566,342	.....	.....	325	3,031	3,285	193,905	.....
Morgan.....	2,723,659	28,563	3,680,325	.....	2	250	.....	2,658	110,387	.....
Muskingum.....	4,438,265	46,074	3,573,160	.....	1	5,000	50	3,873	132,325	.....
Noble.....	1,629,275	10,505	1,184,865	.....	.....	.....	.....	2,749	108,638	.....
.....	4,906,720	64,737	4,507,545	.....	.....	6,425	.....	1,902	78,197	.....
.....	2,134,625	10,822	1,294,875	.....	.....	200	8	2,341	45,247	.....
.....	4,344,298	51,898	3,548,320	.....	2	3,510	100	6,064	374,506	.....
Totals.....	52,197,910	\$554,174	40,427,893	9	26	64,400	3,289	60,364	2,504,793	.....
State Totals.....	303,607,885	\$3,481,509	254,672,412	402	6,378	18,435,748	287,062	219,988	8,401,898	.....

AGRICULTURAL STATISTICS—Continued.
SOUTHEAST SECTION—Continued.

Counties.	Orchards—Continued.							
	Peaches.		Pears.		Cherries.		Plums.	
	Acres occupied 1912.	Bushels produced 1912.	Acres occupied 1912.	Bushels produced 1912.	Acres occupied 1912.	Bushels produced 1912.	Acres occupied 1912.	Bushels produced 1912.
Athens.....	520	12,665	39	3,175	22	542	35	1,737
Belmont.....	169	1,394	102	8,264	45	1,986	65	4,806
Fairfield.....	85	2,528	9	1,924	12	345	6	296
Gallia.....	474	5,925	38	1,360	7	160	9	539
Guernsey.....	206	2,788	27	1,485	24	705	11	653
Hocking.....	127	1,938	3	59	2	229	6	191
Jackson.....	330	5,292	4	210	1	41	1	51
Lawrence.....	373	19,888	80	4,073	23	674	28	1,978
Licking.....	179	4,017	22	2,295	4	854	12	985
Meigs.....	127	2,269	40	1,780	10	135	14	363
Monroe.....	16	50	40	528	3	335	8	926
Morgan.....	90	2,606	12	528		188	6	806
Muskingum.....	294	5,700	60	13,523	10	309	12	1,059
Noble.....	43	1,346	2	415	2	172	5	405
Perry.....	107	3,685	11	1,169	8	768	9	1,210
Vinton.....	297	8,960	7	270	6	37	3	345
Washington.....	111	2,509	121	1,395	3	187	9	790
Totals.....	3,548	84,060	577	41,965	182	7,657	237	17,140
State Totals.....	19,160	696,993	3,755	200,417	1,562	55,523	1,124	70,260

AGRICULTURAL STATISTICS—Continued.

SOUTHEAST SECTION—Continued

Counties.	Orchards.		Lands Owned in 1912.						
	Other Small Fruit.		Number of acres cultivated.	Number of acres meadow.	Number of acres pasture	Number of acres woodland	Number of acres lying waste.	Total number acres owned 1912.	
	Acres occupied 1912.	Bushels produced 1912.							
Athens.....	5	302	25,789	22,270	115,280	24,340	16,082	303,761	
Beltmont.....	205	7,202	49,413	36,110	137,689	21,334	16,072	280,667	
Barfield.....	77	3,153	103,125	47,807	84,799	23,092	6,267	265,089	
Calla.....	57	1,944	40,499	21,066	107,721	22,863	22,863	214,266	
Guernsey.....	17	1,255	38,788	37,064	140,229	26,140	5,583	260,777	
Hocking.....	6	160	24,945	16,108	60,918	28,680	12,606	152,156	
Jackson.....	12	160	26,811	22,501	83,654	17,125	8,261	158,740	
Lawrence.....	200	7,199	27,792	9,269	52,680	16,676	42,507	149,224	
Licking.....	26	830	95,860	67,022	161,278	31,917	5,703	399,680	
Meigs.....	41	1,860	35,269	25,497	101,028	22,407	14,664	198,843	
Monroe.....	23	1,766	45,523	27,497	110,448	32,407	20,025	280,246	
Morgan.....			25,792	26,580	124,328	31,753	30,025	207,268	
Muskingum.....	21	1,535	69,868	46,978	177,961	21,190	9,378	389,708	
Noble.....	8	270	32,399	26,982	145,976	36,192	9,709	281,438	
Perry.....	12	494	35,883	27,303	81,388	21,434	1,637	172,481	
Vinton.....	11	181	20,812	15,341	33,466	16,147	13,760	108,143	
Washington.....	51	3,957	56,006	34,868	140,922	42,780	23,045	207,690	
Totals.....	771	32,247	749,091	513,261	1,918,712	441,619	238,515	3,869,936	
State Totals.....	4,182	201,659	7,877,761	2,548,081	6,204,114	2,076,612	678,808	19,676,679	

AGRICULTURAL STATISTICS—Continued.

SOUTHEAST SECTION—Continued.

Counties.	Lime Kilns or Factories.		Tile Factories.	Horses.	Cattle.			
	Number of 1912.	Number of 1913.			Beef cattle owned in April, 1913.	Milch cows owned in April 1913.	All other cattle owned in April, 1913.	Total number owned in April, 1913.
Athens.....		3,842			1,290	4,417	3,900	9,507
Belmont.....	12	6,424			361	8,932	6,338	15,631
Pairfield.....	1	10,463			1,566	8,422	9,733	19,720
Gallia.....		4,715			1,159	5,032	5,547	10,723
Guernsey.....		5,619			1,644	6,120	5,320	13,064
Hocking.....		3,087			923	2,964	3,989	7,156
Jackson.....		2,985			110	3,496	3,197	6,403
Lawrence.....		3,681	2		361	3,083	3,123	6,466
Licking.....		13,980			1,006	12,532	9,743	23,604
Meigs.....		4,408			939	4,724	4,256	9,249
Monroe.....		4,173	2		241	5,864	3,686	9,791
Morgan.....	1	3,803			106	3,922	4,763	8,789
Muskingum.....		6,595			438	8,146	8,064	16,698
Noble.....		5,337			906	5,864	7,023	13,292
Perry.....		4,842			566	4,704	5,246	10,506
Vinton.....		2,334			136	2,263	2,957	5,355
Washington.....		5,950			329	6,928	5,635	12,792
Totals.....	14	92,219	4		9,550	97,221	92,900	199,771
State Totals.....	51	657,142	150		• 40,353	675,902	408,789	1,131,550

AGRICULTURAL STATISTICS—Continued.

SOUTHEAST SECTION—Continued.

Counties.	Sheep.				Wool.	Hogs.	
	Number owned April, 1913.	Killed by dogs 1912.	Value.	Injured by dogs 1912.		Total number owned in April 1913.	For summer markets 1913.
Athens.....	38,356	258	\$814	42	280,816	2,609	431
Belmont.....	47,387	316	1,013	118	333,797	6,800	714
Fairfield.....	11,199	495	1,751	181	71,545	33,901	18,293
Gallia.....	12,616	272	997	88	80,438	3,914	217
Guernsey.....	60,814	638	2,616	99	495,515	4,819	482
Hocking.....	10,755	126	402	64	50,836	3,956	465
Jackson.....	3,135	23	97	11	16,475	2,763	488
Lawrence.....	1,157	137	442	79	3,099	2,525	22
Licking.....	93,302	430	1,896	166	682,175	22,809	9,545
Meigs.....	20,075	351	1,307	133	160,696	2,729	82
Monroe.....	8,199	98	407	99	61,381	4,128	231
Morgan.....	66,238	314	1,053	81	485,245	3,776	450
Muskingum.....	75,714	414	1,329	87	628,321	8,423	1,163
Noble.....	48,954	259	867	68	365,089	5,426	540
Perry.....	18,408	186	587	88	100,415	7,859	2,335
Vinton.....	18,876	110	320	46	113,729	2,467	171
Washington.....	32,687	199	579	104	198,524	4,671	11
Totals.....	567,872	4,621	\$16,477	1,544	4,128,086	123,575	35,640
State Totals.....	1,768,017	15,643	\$65,574	6,324	12,959,110	1,354,861	452,287

AGRICULTURAL STATISTICS—Continued.
SOUTHEAST SECTION—Concluded.

Counties.	Domestic Animals Died From Disease in 1912.							
	Horses.		Cattle.		Sheep.		Hogs.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Athens.....	56	\$5,390	60	\$1,640	532	\$1,264	61	\$782
Belmont.....	128	11,490	131	4,077	266	716	301	3,048
Fairfield.....	197	19,397	136	4,368	335	1,451	301	13,990
Gallia.....	145	11,740	153	4,186	501	1,421	1,656	729
Guernsey.....	96	11,685	99	2,911	784	1,667	78	1,320
Hocking.....	74	5,550	84	1,657	391	998	101	938
Jackson.....	86	6,675	179	2,023	82	312	37	351
Lawrence.....	101	8,500	134	3,341	26	127	111	841
Licking.....	186	17,610	201	5,965	1,104	2,814	858	6,031
Meigs.....	103	8,225	87	2,055	223	520	43	552
Monroe.....	79	7,001	89	2,335	110	247	53	755
Morgan.....	90	8,695	75	2,195	831	1,966	56	420
Muskingum.....	86	7,850	78	2,498	450	1,018	111	1,174
Noble.....	60	6,240	86	2,572	630	1,698	45	458
Perry.....	92	9,163	97	2,024	121	276	47	613
Vinton.....	96	6,960	79	1,898	632	1,398	59	550
Washington.....	155	14,505	147	3,815	968	2,592	90	984
Totals.....	1,830	\$166,676	1,914	\$50,490	7,976	\$20,475	3,818	\$33,536
State Totals.....	14,156	\$1,411,478	12,290	\$436,719	35,595	\$125,767	168,383	\$1,282,464

AGRICULTURAL STATISTICS—Continued.

NORTHWEST SECTION.

Counties.	Wheat.			Rye.			Buckwheat.	
	Acres sown for harvest 1912.	Bushels produced 1912.	Acres sown for harvest 1913.	Acres sown for 1912.	Bushels produced 1912.	Acres sown for 1913.	Acres sown for 1912.	Bushels produced 1912.
Allen.....	8,106	31,440	7,835	4,256	81,228	8,125	5	300
Anglaise.....	15,159	45,011	17,737	2,579	44,073	6,419	35	890
Champaign.....	17,998	192,512	20,729	1,330	47,604	3,567		
Crawford.....	14,729	44,447	24,070	413	5,379	1,465	3	40
Darke.....	18,808	135,063	30,634	3,618	47,705	9,660		22
Defiance.....	5,207	1,328	11,555	552	8,295	1,769	70	1,690
Delaware.....	9,396	53,052	15,108	859	13,703	3,567	13	1,269
Fulton.....	1,196	6,004	10,034	305	3,471	1,063	363	6,143
Hancock.....	16,147	23,952	22,029	1,650	27,070	6,069	2	30
Hardin.....	4,647	26,965	5,356	3,905	69,959	5,087	7	62
Henry.....	5,741	2,830	12,278	251	4,261	1,137	173	3,450
Logan.....	8,885	88,715	7,156	3,194	43,799	4,902	19	116
Lucas.....	4,219	5,434	4,394	583	8,531	961	314	5,952
Marion.....	6,219	42,991	8,823	1,344	18,305	1,602		50
Mercer.....	15,725	84,681	17,820	1,936	33,847	4,339	20	228
Morrow.....	19,202	50,165	12,645	1,007	15,268	3,118	12	116
Ottawa.....	2,505	3,339	5,247	109	1,845	442	69	999
Paulding.....	3,318	2,233	3,423	892	14,774	1,102	289	289
Putnam.....	6,604	9,354	10,369	975	18,878	2,453	16	784
Sandusky.....	18,391	3,621	19,275	671	7,339	3,560	54	
Seneca.....	40,495	104,353	45,873	429	6,766	1,375		168
Shelby.....	14,089	82,398	18,792	1,160	17,001	1,311	13	50
Union.....	9,005	68,391	10,587	1,966	25,983	4,386	7	46
Van Wert.....	5,304	22,157	4,013	2,450	48,617	3,319	12	258
Williams.....	9,693	9,609	16,478	419	3,972	1,040	2	258
Wood.....	9,969	4,737	16,010	1,290	9,445	1,293	118	2,516
Wyandot.....	11,570	16,661	16,283	1,895	6,416	2,179	19	331
Totals.....	302,455	1,161,443	388,553	39,047	603,574	86,860	1,348	23,739
State Totals.....	1,349,436	10,856,948	1,616,179	86,066	1,138,125	185,473	14,814	283,476

AGRICULTURAL STATISTICS—Continued.
NORTHEAST SECTION—Continued.

Counties.	Oats.			Winter Barley.			Spring Barley.		
	Acres sown 1912.	Bushels produced 1912.	Acres (estimated) sown for 1913.	Acres sown 1912.	Bushels produced 1912.	Acres (estimated) sown for 1913.	Acres sown 1912.	Bushels produced 1912.	Acres sown for 1913.
Allen.....	29,908	1,346,571	21,518	32	938	22	1,479	42,098	2,514
Anglaize.....	39,781	1,838,198	28,549	35	1,113	14	1,905	26,781	1,230
Campaign.....	30,839	1,478,276	24,629	10	336	12	135	2,100	241
Crawford.....	40,340	1,432,864	29,250	10	193	15	300	8,057	456
Darke.....	57,592	2,671,889	42,119	8	180	24	142	4,587	200
Defiance.....	48,788	2,108,744	40,350	31	747	26	1,611	52,532	1,007
Delaware.....	15,910	609,360	13,321						21
Fulton.....	34,730	1,737,411	29,529	91	2,807	164	2,675	121,006	3,255
Hancock.....	40,259	2,008,564	29,207	40	1,055	52	1,054	31,297	1,734
Hardin.....	25,966	1,161,783	21,514	36	973	53	174	4,724	470
Henry.....	55,446	2,967,208	47,479	229	7,197	259	3,832	133,336	3,397
Logan.....	32,394	1,328,260	26,259	36	345	41	653	19,106	928
Lucas.....	22,325	1,011,146	19,804	32	1,390	17	2,652	87,089	2,431
Marion.....	36,438	1,416,268	29,627			91	25	250	25
Mercer.....	50,584	2,173,234	37,329	44	1,200	48	1,614	53,740	2,342
Morrow.....	18,739	700,717	15,201			5	26	60	5
Ottawa.....	24,161	948,924	17,828	6	200	3	3,019	80,776	2,812
Paulding.....	59,482	2,842,475	58,720	30	960	28	530	16,519	512
Putnam.....	50,555	2,359,581	38,192	27	1,108	25	4,096	149,911	4,971
Sandusky.....	42,493	1,878,920	27,691	28	1,230	89	1,863	64,884	1,873
Seneca.....	51,488	2,211,219	34,066	34	880	50	200	5,801	692
Shelby.....	39,009	1,711,655	36,503	25	600	10	189	6,162	196
Union.....	26,081	1,120,401	22,508	12	230	12	48	380	51
Van Wert.....	49,442	2,345,955	40,084	10	38	23	1,360	41,822	1,234
Williams.....	36,810	1,906,491	29,687	34	1,370	63	2,039	64,913	2,363
Wood.....	79,110	3,760,446	69,535	42	1,300	48	2,375	73,286	2,459
Wyandot.....	31,099	1,326,185	22,016	29	83	25	133	2,353	183
Totals.....	1,069,169	48,302,675	853,015	911	20,433	1,192	33,779	1,098,030	38,202
State Totals.....	1,895,260	80,146,974	1,610,196	2,627	56,851	2,932	36,608	1,174,833	41,457

AGRICULTURAL STATISTICS—Continued.

NORTHWEST SECTION—Continued.

Counties.	Corn.		Ensilage Corn.		Broom Corn		Sugat Corn.	
	Acres planted 1912.	Bushels (shelled) produced 1912.	Acres planted (estimated) for crop of 1913.	Acres planted 1912.	Acres planted 1912.	Pounds broom brush produced 1912.	Acres planted 1912.	Tons produced 1912.
Allen.....	41,798	1,785,790	38,940	197	221	280	21	40
Anguize.....	50,268	2,000,975	45,982	162	140	280	4	5
Champaign.....	59,686	2,591,075	55,617	268	303	280	424	966
Crawford.....	41,295	1,467,378	39,313	700	278	5,800	28	35
Darke.....	92,527	4,090,157	87,167	229	191	5,800	6	14
Defiance.....	38,372	1,668,826	33,827	131	169	4,000	16	40
Delaware.....	40,718	1,706,108	35,882	1,751	1,540	800	91	314
Fulton.....	39,050	1,812,646	38,974	1,218	1,183	800	16	40
Hancock.....	57,160	2,637,672	53,136	27	41	800	91	314
Hardin.....	38,933	1,694,584	36,104	107	89	800	16	40
Henry.....	64,130	3,335,584	60,103	107	89	800	16	40
Logan.....	50,229	2,114,147	44,540	735	660	800	16	40
Lucas.....	27,385	1,177,054	25,278	1,843	1,582	800	16	40
Marion.....	52,881	2,076,568	48,706	174	149	800	16	40
Mercer.....	52,586	2,547,860	44,940	203	176	800	16	40
Morrow.....	29,127	1,210,176	28,746	537	516	800	16	40
Ottawa.....	31,976	1,071,230	22,719	57	55	800	16	40
Paulding.....	56,792	2,601,574	57,502	65	63	800	16	40
Putnam.....	60,191	2,777,253	56,035	23	13	800	16	40
Seneca.....	39,064	1,788,851	38,704	220	238	800	16	40
Shelby.....	55,724	2,371,909	53,589	81	73	800	16	40
Union.....	43,857	1,723,486	42,828	21	16	800	16	40
Van Wert.....	50,461	2,103,780	46,385	179	65	800	16	40
Williams.....	55,600	2,398,606	52,736	98	62	800	16	40
Wood.....	39,624	1,700,285	35,832	237	145	800	16	40
Wyandot.....	93,256	4,143,278	90,828	447	370	800	16	40
Wyandot.....	40,438	1,751,445	38,950	63	59	800	16	40
Totals.....	1,343,128	58,338,297	1,253,453	9,832	8,420	15,710	1,775	3,888
State Totals.....	3,161,288	127,725,060	2,988,115	69,738	66,784	65,049	18,617	49,105

AGRICULTURAL STATISTICS—Continued.

NORTHWEST SECTION—Continued.

Counties.	Tomatoes.		Peas.		Irish Potatoes.		Sweet Potatoes.	
	Acres planted 1912.	Bushels produced 1912.	Acres planted 1912.	Pounds produced 1912.	Acres planted 1912.	Bushels produced 1912.	Acres planted 1912.	Bushels produced 1912.
Allen.....	10	1,350	2	5,000	785	80,198	674	
Augsdize.....	5	590	1	1,600	980	109,618	1,023	
Champaign.....	88	6,503	137	202,700	311	36,446	280	10
Crawford.....		125	5	2,200	1,509	165,436	1,472	
Darke.....	197	18,478	1		1,162	105,970	1,043	287
Defiance.....					677	96,815	687	
Delaware.....			10	20,000	454	40,196	456	
Ellettsburg.....	13	2,250	133	12,000	729	107,641	754	
Hancock.....		1,350	1	3,000	751	104,837	689	
Hardin.....	1		1		872	81,893	499	130
Henry.....			8	1,600	637	81,708	634	
Logan.....					450	38,201	305	15
Lucas.....	887	183,126	13	11,500	3,061	411,856	3,371	
Marion.....	1	200	5	645	645	69,581	801	120
Mercer.....	171	17,673	38	67,400	383	53,586	455	
Morrow.....					933	104,290	1,014	
Ottawa.....	436	97,272	1		729	57,600	658	
Paulding.....	5	80	9	8	189	23,717	197	
Putnam.....	21	260			867	83,647	769	20
Sandusky.....	15	3,160			2,194	303,377	2,192	
Seneca.....	15	3,810	17	5,000	1,803	230,414	1,831	
Shelby.....	3	3,000	3	3,000	984	65,911	694	376
Union.....	2	1,090	24	53,000	179	24,646	124	
Van Wert.....	15	2,318	12	10,000	855	69,917	884	168
Williams.....					698	104,190	664	
Wood.....	207	129,712			946	110,944	1,006	
Wyandot.....		50	2	424	433	50,095	429	
Totals.....	2,085	470,587	423	398,432	24,005	2,805,803	28,345	1,125
State Totals.....	6,408	1,076,630	3,919	5,681,302	104,812	10,579,701	103,302	29,692

AGRICULTURAL STATISTICS—Continued.
NORTHWEST SECTION—Continued.

Counties.	Onions.		Meadow.		Clover.			
	Acres planted 1912.	Bushels produced 1912.	Acres in grass (other than clover) 1912.	Tons of hay produced 1912.	Acres grown 1912.	Tons of hay produced 1912.	Bushels of seed 1912.	Acres plowed under for manure 1912.
Allen.....	10	2,090	29,231	29,750	4,365	4,484	2,450	69
Anglaise.....			19,002	21,295	3,628	3,663	2,462	464
Champaign.....	4	1,150	27,569	20,719	4,623	4,165	2,275	899
Crawford.....			20,723	34,111	11,630	13,197	3,882	19
Darke.....	6	1,511	20,723	21,937	10,934	8,904	2,810	5,004
Defiance.....			22,531	22,345	7,784	6,909	7,142	282
Delaware.....	2	305	44,904	62,339	2,940	3,310	487	45
Fulton.....	4	2,270	22,298	26,127	3,252	3,686	1,857	5
Hancock.....	50	24,550	30,323	33,493	7,805	7,480	3,612	182
Hardin.....	3,688	1,195,170	20,364	23,681	2,150	1,969	1,619	13
Henry.....		72	19,939	21,669	5,827	4,659	8,053	988
Logan.....	3	850	20,928	25,146	5,300	5,634	2,263	947
Lucas.....	425	150,785	12,056	14,706	2,844	3,168	1,789	246
Marion.....	68	27,750	27,380	33,364	1,733	1,810	389	156
Mercer.....			22,384	23,623	7,105	6,626	4,831	219
Morrow.....			38,822	41,235	7,602	9,484	1,908	40
Paulding.....	2	700	16,162	13,871	5,026	5,344	789	258
Pottawamie.....	7	2,360	22,405	24,706	4,890	4,096	3,949	645
Sandusky.....			17,926	17,840	4,890	4,096	4,014	645
Seneca.....	106	20,900	34,954	36,282	17,300	14,321	2,164	530
Shelby.....			16,139	15,249	5,277	3,642	7,809	457
Union.....		61	33,786	40,116	3,620	3,757	2,482	1,966
Van Wert.....	5	80	27,992	34,036	5,408	6,840	2,520	368
Williams.....	45	38,486	30,644	31,905	12,924	10,214	6,226	346
Wood.....	12	3,505	23,861	25,591	12,941	10,306	12,439	2,488
Wyandot.....	131	29,923	24,233	28,239	8,775	9,779	2,850	121
Totals.....	4,563	1,456,492	651,435	728,701	176,883	166,898	90,446	16,945
State Totals.....	6,427	2,050,993	2,280,813	2,579,413	446,207	441,690	155,269	57,285

AGRICULTURAL STATISTICS—Continued.
NORTHWEST SECTION—Continued.

Counties.	Alfalfa		Flax.			Tobacco.	
	Acres grown in 1912.	Tons of hay in 1912.	Acres sown 1912.	Bushels of seed 1912.	Pounds of fibre 1912.	Acres planted 1912.	Pounds produced 1912.
Allen.....	222	359	1	8			
Anguila.....	202	360					
Champaign.....	1,073	1,960	5	70		30	121,760
Crawford.....	31	57					
Darke.....	223	435				14,573	14,998,403
Defiance.....	146	197					
Delaware.....	284	790					
Fulton.....	441	919	22	277			
Hancock.....	110	136	13	196			700
Hardin.....	175	342	15	269		2	10,000
Henry.....	95	107	4		6,020	10	2,223
Logan.....	1,692	3,252					
Lucas.....	509	1,056					
Marion.....	75	115					
Mercer.....	203	341					
Morrow.....	109	238	14	100			21,300
Ottawa.....	401	637	65	75		33	
Paulding.....	68	81					
Putnam.....	52	55	2	25			
Sandusky.....	115	232					
Seneca.....	278	409					
Shelby.....	171	253				166	254,500
Union.....	649	810					
Van Wert.....	73	149					
Williams.....	548	684					
Wood.....	512	884					
Wyandot.....	289	357					
Totals.....	8,736	14,844	141	1,019	6,020	14,814	15,406,886
State Totals.....	27,699	56,140	1,749	16,843	657,611	59,896	55,823,741

AGRICULTURAL STATISTICS—Continued.

NORTHWEST SECTION—Continued.

Counties.	Creameries. Number 1912.	Cheese Factories. Number 1912.	Milk Condenseries. Number 1912.	Dairies. Number, four or more cows.	Milk Gallons sold for family use 1912.	Butter.	
						Pounds made in home dairies 1912.	Pounds made in factories and creameries 1912.
Allen.....	1			50	360,680	605,205	132,570
Anguize.....	2			139	171,708	570,840	1,796,950
Champaign.....				464	402,765	482,960	243,206
Crawford.....				1,222	282,144	535,673	67,460
Darke.....				232	89,700	999,602	171,130
Defiance.....				71	297,410	427,306	39,100
Delaware.....				342	527,474	350,242	760,585
Fulton.....	1	2		440	3,177,435	199,874	214,883
Hancock.....				203	147,050	1,020,380	32,772
Hardin.....				38	93,461	350,374	10,270
Henry.....				234	318,280	555,642	220,920
Logan.....	2			644	448,637	498,032	118,350
Lucas.....				72	1,456,066	313,111	116,160
Marion.....				16	314,384	447,094	21,800
Mercer.....					54,545	556,120	
Morrow.....				40	15,240	481,205	173,109
Ottawa.....				2	51,095	386,875	26,550
Paulding.....		1		108	28,171	330,742	69,635
Putnam.....				272	4,840	534,895	
Sandusky.....				171,986	2	663,561	
Seneca.....	1			151	84,731	641,429	219,470
Shelby.....				242,793	512,741	512,741	6,900
Union.....				250	1,846,584	310,537	121,605
Van Wert.....				241	52,000	472,181	13,750
Williams.....	4		1	561,421	500,900	500,900	100,635
Wood.....				513	593,412	739,387	
Wyandot.....					35,850	358,124	
Totals.....	11	3	1	5,755	11,860,770	13,877,932	4,683,810
State Totals.....	142	93	31	54,457	82,714,922	45,365,502	11,330,578

AGRICULTURAL STATISTICS—Continued.
NORTHWEST SECTION—Continued.

Counties.	Cheese.		Eggs.		Sorghum.		
	Pounds made in home dairies 1912.	Pounds made in factories and creameries 1912.	Number dozen produced 1912.	Number dozen shipped beyond state 1912.	Acres planted 1912.	Pounds of sugar 1912.	Gallons of syrup 1912.
Allen.....	8,410		1,176,000		2		260
Auglaize.....			1,130,555		171		8,109
Champaign.....	4,000	2,000	769,647		2		177
Crawford.....			1,170,241	1,360	3		233
Darke.....			2,063,734	57,485	10		1,557
Defiance.....			1,153,723		19		1,568
Delaware.....	200		1,126,453			1	119
Ellettsburg.....	980	663,180	1,451,690	20,090	1		124
Hancock.....	53		1,181,072	30	1		191
Hardin.....			1,769,268		6		104
Henry.....			1,639,216	73,170	2	10	1,214
Logan.....	4,730		1,028,751	100	1		34
Lucas.....			811,213				10
Marion.....	700		1,500,970	70,000	84	45	5,155
Mercer.....			1,168,334		16		125
Morrow.....			539,464		7	296	246
Paulding.....		95,955	855,149		18		1,704
Putnam.....	16,500		1,279,955				
Sandusky.....			872,373				
Seneca.....			1,158,823		215		82
Shelby.....			1,100,634	156,720	40	26	3,102
Union.....			1,215,913	20	9		114
Van Wert.....			1,231,840		3		292
Williams.....		84,200	1,572,392	9,300			565
Wood.....	1,470		1,545,570		14	42	736
Wyandot.....	600		833,455				
Totals.....	37,643	845,335	30,946,881	388,275	625	420	25,826
State Totals.....	1,085,708	4,894,668	88,299,453	1,050,038	2,168	1,708	72,899

AGRICULTURAL STATISTICS—Continued.
NORTHWEST SECTION—Continued.

Counties.	Maple Products.			Sugar Beets			Bees.	Honey.	
	No. of trees from which sugar or syrup was made 1913.	Pounds of sugar 1913.	Gallons of syrup 1913.	Acres 1911.	Acres 1912.	Tons produced 1911.			Tons produced 1913.	Number of hives 1912.	Pounds of honey 1912.
Allen.....	9,318	150	1,503	14	121	140	1,197	98	1,510
Auglaize.....	9,336		2,243		338	847	2,492	277	2,917
Champaign.....	8,575	175	2,964					247	11,614
Crawford.....	11,088	575	2,332		25		120	259	6,582
Darke.....	2,280		486	38	67	370	499	539	6,534
Defiance.....	6,054	55	1,279	373	2,646	4,628	27,035	46	555
Delaware.....	17,556	265	3,917		64		317	110	929
Fulton.....	1,145		226	148	800	1,610	9,213		
Hancock.....	11,229		2,202	557	618	9,678	7,967		
Hardin.....	1,365		471	40	65	400	150		
Henry.....	475	14	122	456	1,143	6,424	12,227	101	1,300
Logan.....	74,408	19,543	21,245					23	290
Lucas.....	610		375	1,444	2,111	19,949	24,387	344	2,930
Marion.....	1,447	40	285	56	100	240	1,535	119	2,425
Mercer.....	400		44	568	1,451	4,298	11,939	162	2,061
Morrow.....	76,112	205	15,487					72	635
Ottawa.....				233	868	2,079	8,848	37	590
Paulding.....	635	30	62	3,155	4,043	29,280	35,801	84	2,239
Putnam.....	560	60	90	937	2,986	10,843	27,544	88	3,970
Sandusky.....	18,777	213	3,363	109	271	794	1,941	216	3,314
Seneca.....	240		101	9	34	150	304	20	500
Shelby.....	101							148	3,322
Union.....	13,397	620	2,286				2	138	3,775
Van Wert.....	100	15	19	314	2,123	3,401	18,874	396	5,706
Williams.....	26,938	200	5,124	275	857	3,219	5,793	45	415
Wood.....	1,165		163	1,061	3,415	13,951	42,790	314	9,210
Wyandot.....	5,801		999					186	2,338
Totals.....	299,011	22,160	67,378	9,787	23,826	112,299	289,955	6,159	74,514
State Totals.....	2,474,043	54,488	474,289	9,841	23,921	112,328	240,292	19,842	281,330

AGRICULTURAL STATISTICS—Continued.
NORTHWEST SECTION—Continued.

Counties.	Commercial Fertilizers.			Grapes and Wine.				Gallons of Wine.	Orchards.	
	Pounds used during 1912.	Cost of fertilizers used during 1912.	Estimated pounds to be used during 1913.	Acres (new) vineyard 1912.	Whole No. of acres in vineyard 1912.	Pounds of grapes gathered in 1912.	Pressed in 1912.		Acres occupied 1912.	Bushels produced 1912.	Apples.
Allen.....	992,075	\$11,281	1,386,850					1,970	51,374	
Auglaize.....	1,641,600	14,490	1,174,000					1,384	17,110	
Champaign.....	3,018,700	49,578	2,022,400		1	10,781	73	1,215	2,546	
Crawford.....	3,189,963	28,956	2,657,704		2	16,560	626	3,087	272,010	
Darke.....	2,837,190	30,930	2,939,676					2,965	6,786	
Defiance.....	974,225	8,014	567,700	1	3	34,650	526	1,423	39,984	
Delaware.....	2,615,925	25,808	1,786,325					1,843	27,057	
Franklin.....	1,646,475	153,311	880,225					2,060	87,271	
Hancock.....	1,782,215	18,142	841,875		1	3,100	90	2,889	108,940	
Hardin.....	2,392,725	28,731	1,963,902		1	8,860	397	1,373	32,148	
Henry.....	900,213	9,621	642,578					2,471	59,619	
Logan.....	1,395,250	97,821	942,500					1,202	7,362	
Lucas.....	1,237,895	13,840	1,306,920	49	324	706,353	38,929	1,793	89,763	
Marion.....	1,469,500	14,337	1,556,000					1,342	41,630	
Mercer.....	1,387,003	20,546	1,046,895	5		4,950	1,300	1,613	44,223	
Morrow.....	3,788,375	32,224	3,504,080					1,867	91,517	
Ottawa.....	122,900	10,724	129,725	5	1,395	3,199,202	20,810	1,718	91,683	
Paulding.....	153,075	1,801	35,385	2	6	10,668	59	1,112	58,215	
Putnam.....	426,275	2,921	402,875	2		8,250	682	2,460	84,248	
Sandusky.....	2,576,010	27,809	1,845,850		5	3,200		2,922	133,498	
Seneca.....	6,819,525	63,651	6,102,400					2,874	113,008	
Shelby.....	1,814,900	19,120	1,154,825	1		1,152		1,571	4,697	
Union.....	1,667,150	15,538	929,300					1,671	8,631	
Van Wert.....	66,850	789	49,200			2,500	210	2,850	82,942	
Williams.....	1,707,835	17,046	997,430		2	3,650	198	3,064	116,101	
Wood.....	1,514,285	16,868	1,268,150	13	40	19,980	66	2,970	50,055	
Wyandot.....	1,364,950	14,273	916,225		1	1,750	20	1,267	48,362	
Totals.....	49,383,064	\$742,204	37,995,964	78	1,782	4,293,276	67,348	54,642	1,770,578	
State Totals.....	303,507,885	\$3,481,509	254,672,412	402	6,378	18,435,748	287,062	219,968	8,401,838	

AGRICULTURAL STATISTICS—Continued.
NORTHWEST SECTION—Continued.

Counties.	Orchards—Continued.							
	Peaches.		Pears.		Cherries.		Plums.	
	Acres occupied 1912.	Bushels produced 1912.	Acres occupied 1912.	Bushels produced 1912.	Acres occupied 1912.	Bushels produced 1912.	Acres occupied 1912.	Bushels produced 1912.
Allen.....		115	4	505	6	175		215
Anglaise.....	9	218	7	1,668	5	434	2	7
Champaign.....	44	601	15	611	11	62	7	434
Crawford.....	4	109	7	928	15	528	8	122
Darke.....	6	6	1	511	5	81	1	362
Defiance.....	14	165			3	80	15	404
Delaware.....	26	204	19	2,173	18	128		143
Fulton.....	15	80		25	2	143	1	84
Hancock.....	7	735	10	668	2	372	3	463
Hardin.....	3	11	17	19	1	155		22
Henry.....	22	20	12	308	3	165	1	212
Logan.....	53	130	7	323	6	151	21	578
Lucas.....	262	814	83	3,526	70	3,397	27	2,503
Marion.....		37	1	387	5	157		103
Marion.....	23	90	3	140	3	50		395
Morrow.....		923	18	2,070	3	257	3	13,411
Ottawa.....	8,674	533,228	136	7,467	14	673	127	13,411
Paulding.....	3	8	5	55	4	373	3	74
Putnam.....	2	113	5	510	1	384	3	294
Sandusky.....	84	174	15	2,284	100	5,955	52	425
Shenandoah.....	19	43	2	40	2	142		17
Shelby.....	3	1,023	23	1,449	3	100	2	110
Union.....	4	126	10	917	5	106	6	115
Van Wert.....	7	131	7	295	16	623	5	612
Williams.....		19		187		113		96
Wood.....	75	223	65	603	49	1,006	11	365
Wyandot.....	19	432	2	520	24	699	9	521
Totals.....	9,378	539,767	466	28,178	362	15,995	308	21,980
State Totals.....	19,180	686,993	3,755	200,417	1,562	55,523	1,124	70,260

AGRICULTURAL STATISTICS—Continued.

NORTHWEST SECTION—Continued.

Counties.	Orchards.		Lands Owned in 1912.						Total number acres owned 1912.
	Other Small Fruits.		Number of acres cultivated.	Number of acres meadow.	Number of acres pasture.	Number of acres woodland.	Number of acres lying waste.		
	Acres occupied 1912.	Bushels produced 1912.							
Allen.....	2	150	91,668	32,956	51,741	23,945	2,189	202,499	
Angaze.....	14	251	120,664	21,890	32,566	26,268	2,664	204,022	
Champaign.....	10	1,060	124,653	17,808	56,013	15,709	2,110	216,293	
Crawford.....	25	1,010	108,167	40,626	47,121	27,852	1,729	225,495	
Darke.....	41	450	237,316	24,422	42,559	33,451	6,987	344,735	
Defiance.....	27	1,095	123,201	24,917	33,559	28,200	1,666	206,377	
Delaware.....	9	48	79,576	47,005	87,675	16,774	2,049	233,079	
Fulton.....	7	250	107,134	27,879	37,288	20,399	2,759	195,459	
Hancock.....	10	1,051	143,878	35,903	55,131	28,219	4,569	267,710	
Hardin.....	7	278	92,608	26,479	34,002	14,490	2,831	170,410	
Henry.....	26	695	144,106	21,255	24,745	20,501	2,947	213,554	
Logan.....	13	380	115,859	25,658	67,111	20,114	1,926	230,668	
Lucas.....	367	23,984	71,928	12,255	12,515	6,195	7,120	110,013	
Marion.....	24	1,600	90,010	26,627	55,325	13,539	1,765	187,266	
Mercer.....	13	1,325	70,499	26,684	37,330	32,793	4,997	242,987	
Morrow.....	33	675	70,681	16,703	83,634	23,746	1,421	221,794	
Ottawa.....	2	150	122,903	16,703	19,150	6,499	7,478	130,520	
Paulding.....	1	42	141,511	23,522	23,753	12,722	2,414	182,795	
Putnam.....	16	1,115	97,701	23,322	36,306	24,119	3,281	228,739	
Sandusky.....	21	440	167,526	21,031	24,333	16,010	5,708	303,098	
Seneca.....	11	577	123,845	50,829	47,121	32,476	5,146	303,098	
Shelby.....	11	526	89,641	19,681	25,349	17,808	889	191,990	
Union.....	5	162	135,265	41,085	81,723	18,429	231,767	227,113	
Van Wert.....	2	375	105,856	33,662	36,030	22,156	1,931	228,737	
Williams.....	7	545	188,222	40,004	52,128	28,818	7,074	574,511	
Wood.....	28	1,000	84,033	27,682	32,004	19,529	1,163	189,506	
Wyandot.....	9			30,585	54,164	19,562			
Totals.....	734	39,279	3,189,634	780,615	1,190,385	570,383	90,060	6,115,920	
State Totals.....	4,182	201,659	7,877,761	2,548,031	6,204,114	2,076,612	678,808	19,675,679	

AGRICULTURAL STATISTICS—Continued.

NORTHWEST SECTION—Continued.

Counties.	Lime Kilns or Factories.	Tile Factories.	Horses.	Cattle.			
	Number of 1912.	Number of 1912.	Number owned in April, 1913.	Beef cattle owned in April, 1913.	Milch cows owned in April, 1913.	All other cattle owned April, 1913.	Total number owned in April, 1913.
Allen.....			7,833	537	7,451	3,640	11,628
Auglaize.....			8,357	897	8,037	5,242	14,224
Champaign.....		2	9,967	1,674	6,553	6,003	14,230
Crawford.....		3	8,070	315	7,550	4,859	12,724
Deke.....		1	16,999	327	13,674	6,976	20,977
Defiance.....			7,218	286	6,348	2,062	8,696
Delaware.....			8,202	597	9,639	5,664	15,488
Fulton.....		1	8,851	536	9,693	2,383	12,612
Hancock.....			8,807	475	9,191	6,826	16,492
Hardin.....			6,385	1,069	5,088	3,874	10,031
Henry.....		8	8,217	404	7,505	2,740	10,643
Logan.....		1	9,628	875	7,762	6,153	14,790
Lucas.....			5,243	349	6,733	1,250	8,332
Marion.....	3		7,479	1,065	5,504	5,889	12,458
Mercer.....		3	10,771	224	8,416	7,528	16,148
Morrow.....		2	7,092	513	6,453	4,400	11,368
Ottawa.....			9,393	306	4,810	1,470	6,586
Paulding.....		7	8,270	72	4,777	2,006	6,861
Putnam.....		1	9,116	518	8,084	3,626	12,228
Sandusky.....	4	5	7,054	335	6,507	2,428	9,270
Seneca.....	1		10,990	341	10,024	3,941	14,071
Shelby.....			8,021	213	7,472	4,146	11,831
Union.....		3	10,159	491	8,465	4,539	13,495
Van Wert.....			9,722	110	6,551	3,378	10,081
Williams.....		2	8,592	278	7,712	4,567	12,557
Wood.....		4	15,701	4,166	10,811	3,990	18,976
Wyandot.....		1	6,581	724	4,920	3,064	8,709
Totals.....	8	42	237,808	17,697	205,730	112,644	335,512
State Totals.....	51	150	657,142	49,852	675,902	406,789	1,131,550

AGRICULTURAL STATISTICS—Continued.
NORTHWEST SECTION—Continued.

Counties.	Sheep.					Wool.	Hogs.	
	Number owned April, 1913.	Killed by dogs 1912.	Value.	Injured by dogs 1912.	Value.	Pounds shorn 1912.	Total number owned in April, 1913.	Per summer markets 1913.
Allen.....	12,330	107	\$590	10	\$34	88,146	22,803	7,502
Anguize.....	5,137	49	282	45	86	31,417	23,664	9,123
Champaign.....	15,407	156	712	188	1,287	94,068	83,329	14,528
Crawford.....	35,995	179	1,633	336	336	285,723	25,096	11,466
Darke.....	4,368	140	813	11	58	24,637	38,307	10,566
Defiance.....	9,080	167	1,003	103	315	61,374	14,828	5,000
Delaware.....	82,083	198	706	119	197	290,175	18,253	5,742
Fulton.....	7,747	262	262	42	192	35,353	14,977	5,862
Hancock.....	23,145	194	931	164	436	125,910	39,055	17,447
Hardin.....	24,846	222	859	143	570	180,658	20,968	7,284
Henry.....	3,157	44	207	13	71	21,521	14,263	3,859
Lucas.....	24,101	160	620	17	40	166,223	20,731	7,709
Marion.....	1,146	68	433	31	120	6,760	8,769	3,083
Mercer.....	32,603	289	874	116	247	274,912	28,783	8,535
Morrow.....	7,085	118	1,593	48	48	46,317	35,266	8,069
Morrow.....	49,257	139	520	59	123	446,913	13,398	6,116
Ottawa.....	3,072	30	95			24,121	5,832	1,884
Paulding.....	5,908	57	280	12	46	40,396	10,875	2,731
Pritnam.....	5,909	235	127	41	225	43,692	24,468	10,708
Sandusky.....	7,883	133	422	36	80	54,566	14,742	3,601
Seneca.....	28,099	268	1,802	107	269	207,658	28,990	10,008
Shelby.....	2,977	11	60	4	12	29,703	15,952	3,148
Union.....	35,976	153	653	85	323	185,515	28,991	11,830
Van Wert.....	6,926	119	593	32	129	56,702	17,142	5,735
Williams.....	16,572	74	308	175	356	104,934	29,656	10,861
Wood.....	9,666	92	374	25	60	58,271	29,788	12,063
Wyandot.....	49,080	95	445	54	174	323,763	22,336	8,069
Totals.....	459,485	3,876	\$17,186	2,219	\$5,574	3,309,475	600,711	212,554
State Totals.....	1,768,017	15,643	\$65,574	6,324	\$17,852	12,969,110	1,354,851	452,287

AGRICULTURAL STATISTICS—Continued.

NORTHWEST SECTION—Concluded.

Counties.	Domestic Animals Died From Diseases in 1912.							
	Horses.		Cattle.		Sheep.		Hogs.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Allen.....	140	\$19,275	128	\$4,895	387	\$1,769	3,798	\$24,070
Auglaize.....	181	20,347	131	4,515	250	1,102	6,759	52,545
Champaign.....	129	15,155	164	5,845	362	1,299	3,210	20,319
Chawford.....	124	14,515	123	4,347	786	3,016	1,931	13,367
Darke.....	394	39,857	281	9,287	167	944	1,413	12,689
Defiance.....	114	13,205	70	2,305	283	1,369	1,785	1,985
Delaware.....	128	12,555	137	3,945	479	1,535	419	2,810
Fulton.....	160	18,905	143	6,325	181	874	280	3,181
Hancock.....	251	27,578	189	6,161	1,043	4,974	1,285	10,130
Hardin.....	125	15,290	77	2,905	524	1,597	1,176	9,886
Henry.....	143	5,190	200	24,022	194	830	1,198	9,012
Logan.....	191	20,952	156	5,193	1,051	3,049	3,659	26,770
Lucas.....	288	20,676	182	6,035	54	293	5,533	5,672
Marion.....	156	16,415	96	3,118	1,426	4,695	741	32,114
Mercer.....	290	21,880	183	7,573	383	3,194	2,365	16,334
Morrow.....	106	12,745	63	2,555	575	1,619	53	707
Ottawa.....	113	13,545	70	2,445	108	448	648	5,626
Paulding.....	213	21,485	109	4,278	433	1,655	1,881	15,307
Putnam.....	211	25,511	217	6,922	346	1,619	3,226	27,343
Sandusky.....	138	17,135	118	4,695	332	1,555	4,704	47,183
Seneca.....	214	25,960	154	5,165	830	4,017	1,391	10,067
Shelby.....	193	21,641	171	5,365	111	4,005	3,197	25,380
Union.....	148	16,090	122	4,443	865	3,802	817	45,808
Van Wert.....	227	28,655	129	4,710	395	1,910	4,606	32,071
Williams.....	122	13,370	78	3,218	483	2,401	288	2,333
Wood.....	263	41,895	218	8,803	475	1,645	4,433	40,563
Wyandot.....	117	13,869	70	3,251	1,977	6,625	5,496	48,753
Totals.....	5,029	\$547,696	3,777	\$152,319	14,510	\$58,041	70,672	\$542,923
State Totals.....	14,156	\$1,411,478	12,220	\$436,719	35,595	\$125,767	168,383	\$1,282,464

AGRICULTURAL STATISTICS—Continued.
SOUTHWEST SECTION.

Counties.	Wheat.			Rye.			Buckwheat.	
	Acres sown for harvest 1912.	Bushels produced 1912.	Acres sown for harvest 1913.	Acres sown for 1912.	Bushels produced 1912.	Acres sown for 1913.	Acres sown for 1912.	Bushels produced 1912.
Adams.....	10,402	116,212	12,911	1,352	9,671	1,765		
Brown.....	12,804	104,605	16,835	3,973	24,866	7,147	5	15
Butler.....	35,320	316,116	41,676	998	12,765	2,696		
Clark.....	19,256	140,797	21,208	1,296	15,614	3,763		
Clermont.....	9,188	78,730	11,913	1,641	13,597	3,977	5	50
Clinton.....	28,170	289,071	34,413	2,149	24,436	4,339		
Fayette.....	27,883	297,071	35,650	832	6,975	1,320		
Franklin.....	19,596	106,078	30,652	785	8,437	2,307	5	50
Greene.....	27,136	199,862	34,559	2,702	40,665	5,650	6	63
Hamilton.....	9,931	115,649	11,208	478	7,306	877	5	86
Highland.....	32,274	352,241	35,077	2,467	21,946	4,102		
Madison.....	13,694	134,039	21,363	564	6,998	1,550	6	134
Miami.....	19,548	93,597	26,533	586	8,907	2,738	8	
Montgomery.....	13,925	76,317	29,004	1,527	17,636	3,451		
Pickaway.....	55,576	579,495	65,409	375	3,465	1,036		
Pike.....	14,691	138,395	13,333	148	1,109	130	568	6,224
Preble.....	34,404	246,347	37,447	1,412	24,443	4,268		
Ross.....	46,431	559,065	48,031	1,410	12,565	2,361	135	1,993
Scioto.....	13,508	156,470	12,539	122	2,096	188	690	9,353
Warren.....	18,724	138,377	22,175	1,869	16,429	4,422	19	49
Totals.....	462,451	4,238,464	560,932	26,686	279,106	58,087	1,452	18,107
State Totals.....	1,349,436	10,856,948	1,616,179	86,066	1,138,125	185,473	14,814	283,476

AGRICULTURAL STATISTICS—Continued.
SOUTHWEST SECTION—Continued.

Counties.	Oats.			Winter Barley.			Spring Barley.		
	Acres sown 1912.	Bushels produced 1912.	Acres (estimated) sown for 1913.	Acres sown 1912.	Bushels produced 1912.	Acres (estimated) sown for 1913.	Acres sown 1912.	Bushels produced 1912.	Acres sown for 1913.
Adams.....	3,410	76,744	4,967						
Brown.....	4,918	103,926	7,315	4	70	17			
Butler.....	13,436	460,272	7,590	860	17,870	1,007	296	6,076	48
Clark.....	17,586	717,224	11,267			6			3
Clermont.....	6,519	117,999	8,289	4	15				
Clinton.....	9,938	337,315	6,853						26
Fayette.....	8,700	340,513	3,250	42	531	8	20	400	8
Franklin.....	20,146	834,028	16,151	48	465	64	17	364	8
Greene.....	15,273	619,319	8,623	23	1,936	54	10	460	28
Hamilton.....	2,554	67,357	3,110	164	70		141	4,305	134
Highland.....	3,826	94,735	4,285	12	70		45	260	27
Madison.....	37,309	1,639,832	53,516	14	245	22	13	160	167
Miami.....	38,952	1,874,940	29,366			10	59	800	167
Montgomery.....	22,421	988,241	13,358	71	800	67	25	800	66
Pickaway.....	7,239	313,023	2,003			40	101	3,070	363
Pike.....	2,763	56,186	3,729						
Preble.....	21,031	963,699	10,266	11	350	2	22	580	14
Ross.....	3,023	78,803	2,743	10	50	10	75	5,000	195
Scioto.....	2,678	56,132	3,509	10	330	10	10		
Warren.....	12,699	390,860	10,744	55	1,086	71	195	5,317	171
Totals.....	254,551	10,181,148	209,954	1,326	23,808	1,378	1,019	27,612	1,250
State Totals.....	1,895,280	80,146,974	1,610,198	2,627	56,851	2,932	36,908	1,174,833	41,457

AGRICULTURAL STATISTICS—Continued.
SOUTHWEST SECTION—Continued.

Counties.	Corn.		Ensilage Corn.		Broom Corn.		Sugar Corn.		
	Acres planted 1912.	Bushels (shelled) produced 1912.	Acres planted (estimated) for crop of 1913.	Acres planted 1912.	Acres planted (estimated) for crop of 1913.	Acres planted 1912.	Pounds broom brush produced 1912.	Acres planted 1912.	Tons produced 1912.
Adams.....	29,886	742,697	30,141	47	40		9,000		
Brown.....	43,881	1,049,958	44,235	169	104		2		
Butler.....	55,234	2,299,993	51,439	313	343		10	579	1,169
Clark.....	47,808	1,966,123	43,898	708	595		3	64	186
Clermont.....	37,943	936,194	38,717	1,335	1,171		4	179	133
Clinton.....	62,454	2,690,158	58,370	62	52			739	1,905
Fayette.....	52,390	2,242,470	49,551	10	22			586	1,415
Franklin.....	61,417	2,484,016	55,840	976	868		5	630	1,284
Greene.....	62,332	2,652,492	59,308	801	281		14	342	1,784
Hamilton.....	18,758	1,835,089	16,241	352	346			1,427	2,608
Highland.....	57,291	1,985,925	57,254	199	150			73	124
Madison.....	72,985	2,957,918	68,380	170	70			1,068	2,780
Miami.....	54,472	2,526,075	52,920	182	240		24		83
Montgomery.....	51,537	2,238,958	57,069	693	678		17	320	619
Pikaway.....	74,624	3,341,015	73,029	102	130		1	200	
Pike.....	24,723	933,399	23,533	7	34		1	400	
Preble.....	61,694	2,941,615	47,819	149	162		2	1,200	5
Ross.....	66,287	2,827,551	62,645	79	68		21	1,213	4,538
Scioto.....	22,367	750,978	22,368	111	104		14	835	33
Warren.....	47,642	1,823,470	47,855	302	307		3	3,902	9,509
Totals.....	1,005,675	40,007,994	957,642	6,262	5,765		157	15,201	40,657
State Totals.....	3,161,288	127,725,069	2,988,115	69,738	66,784		261	18,617	49,165

AGRICULTURAL STATISTICS—Continued.
SOUTHWEST SECTION—Continued.

Counties.	Tomatoes.		Peas.		Irish Potatoes.		Sweet Potatoes.	
	Acres planted 1912.	Bushels produced 1912.	Acres planted 1912.	Pounds produced 1912.	Acres planted 1912.	Bushels produced 1912.	Acres planted 1912.	Bushels produced 1912.
Adams.....	9	905			201	14,157	168	300
Brown.....	70	6,505	35	63,000	180	15,019	172	75
Butler.....	201	23,510	3	730	795	73,361	3	150
Clark.....	51	6,185	1	30	720	79,884	1	90
Clermont.....	768	92,840	19	920	811	51,641	6	250
Clinton.....	26	2,444			65	7,069	87	82
Fayette.....			85	144,157	10	822		
Franklin.....	237	44,431	198	322,890	1,424	129,268	1,463	
Greene.....		18	540		693	76,408	663	
Hamilton.....	1,041	123,716	7	3,350	3,771	315,510	3,702	2,260
Highland.....					71	4,221	74	
Madison.....	2	225			114	12,252	105	
Miami.....	24	1,621	3	1,600	993	116,013	1,185	62
Montgomery.....	99	15,865	8	3,103	651	57,272	810	35
Pickaway.....	19	1,570	453	580,550	94	17,761	99	
Pike.....	24	1,230	9	4,000	367	38,366	376	
Preble.....	121	14,167	35	5,505	309	25,508	245	487
Ross.....	42	1,825	471	788,947	582	51,768	539	
Scioto.....	29	2,920	6	2,600	974	107,720	997	250
Warren.....	43	3,512	41	51,390	267	24,299	5	490
Totals.....	2,806	343,489	1,914	1,973,762	13,092	1,218,319	13,395	4,531
State Totals.....	6,408	1,076,630	3,919	5,681,302	104,812	10,579,701	103,302	29,692

AGRICULTURAL STATISTICS—Continued.
SOUTHWEST SECTION—Continued.

Counties.	Onions.		Meadow.		Clover.			
	Acres planted 1912.	Bushels produced 1912.	Acres in grass (other than clover) 1912.	Tons of hay produced 1912.	Acres grown 1912.	Tons of hay produced 1912.	Bushels of seed produced 1912.	Acres plowed under for manure 1912.
Adams.....			14,908	41,118	1,868	1,627	187	235
Brown.....			19,629	16,088	2,229	697	159	348
Butler.....	3	515	19,271	18,923	9,290	4,109	2,093	1,954
Clark.....	1	98	22,546	29,899	2,859	3,071	1,483	196
Clermont.....	7	355	26,747	22,812	2,007	1,978	1,02	243
Clinton.....			16,951	18,648	1,655	1,395	1,422	1,669
Fayette.....			11,135	12,769	1,624	680	1,253	404
Franklin.....	2	700	42,194	49,694	1,586	1,731	309	747
Greene.....			17,527	21,896	4,956	4,142	1,074	2,300
Hamilton.....	43	5,342	14,673	15,884	1,796	2,023	542	502
Highland.....			22,680	21,264	2,661	1,547	1,489	199
Madison.....			22,308	26,702	3,266	2,643	1,459	2,122
Miami.....	5	1,002	17,348	20,388	4,538	2,780	934	536
Montgomery.....	4	315	23,924	29,236	1,844	1,440	964	1,195
Pickaway.....			24,475	24,196	5,552	2,180	1,272	715
Pike.....			8,823	7,543	2,495	1,121	450	780
Preble.....	1	250	11,958	11,923	14,477	5,825	1,458	12,852
Ross.....	35	4,544	18,609	18,853	11,339	3,688	2,577	6,078
Scioto.....	1	45	12,052	11,932	1,048	1,048	13	466
Warren.....	1	26	20,841	21,175	6,831	3,353	727	4,380
Totals.....	103	13,492	388,599	440,943	83,841	47,075	19,907	37,8215
State Totals.....	6,427	2,050,993	2,280,813	2,579,413	446,207	441,560	155,269	57,265

AGRICULTURAL STATISTICS—Continued.
SOUTHWEST SECTION—Continued.

Counties.	Alfalfa.		Flax.			Tobacco.	
	Acres grown in 1912.	Tons of hay in 1912.	Acres sown 1912.	Bushels of seed 1912.	Pounds of fibre 1912.	Acres planted 1912	Pounds produced 1912.
Adams.....	153	235				3,535	3,373,710
Brown.....	109	202				4,145	4,407,794
Butler.....	1,495	3,319				704	883,000
Clark.....	616	1,262	28			85	86,021
Clermont.....	921	1,879				2,011	1,874,609
Clinton.....	145	314	7	47	20		
Payette.....	160	220					
Franklin.....	997	1,769					
Greene.....	978	3,580				214	160,400
Hamilton.....	2,153	4,418				267	265,958
Highland.....	479	1,124				33	34,850
Madison.....	520	761					
Miami.....	321	506	10	23		5,584	5,855,105
Montgomery.....	1,733	3,578				14,561	10,619,982
Pickaway.....	264	639					
Pike.....	158	316				97	73,100
Preble.....	750	1,254				5,814	5,481,260
Ross.....	1,133	1,857	5	2		2	1,200
Scioto.....	257	634				578	480,939
Warren.....	849	1,533	42	202		3,037	2,644,800
Totals.....	13,991	29,440	92	274	20	40,937	35,942,178
State Totals.....	27,999	56,140	1,749	16,843	657,611	59,896	55,828,741

AGRICULTURAL STATISTICS—Continued.
SOUTHWEST SECTION—Continued.

Counties.	Creameries.		Cheese Factories.		Milk Condenseries.		Dairies.		Milk.		Butter.	
	Number 1912.		Number 1912.		Number 1912.		Number, four or more cows.		Gallons sold for family use 1912.		Pounds made in home dairies 1912.	Pounds made in factories and creameries 1912.
Adams.....							36		10,550		421,350	81,146
Brown.....							32		219,895		473,180	105,020
Butler.....	2						1,943		1,278,237		689,113	31,000
Clark.....	1						120		1,089,960		435,622	10,795
Clermont.....	6						511		1,315,136		658,355	5,940
Clinton.....							6,237		159,605		309,205	63,195
Payette.....							34		214,430		144,187	13,304
Franklin.....	6						2,482		2,560,315		1,095,159	432,520
Greene.....							1,343		675,257		318,851	63,553
Hamilton.....							247		1,591,652		514,712	6,030
Highland.....							11		76,755		434,851	164,675
Madison.....							35		115,296		228,032	35,975
Miami.....	4						314	2	231,430		777,817	81,885
Montgomery.....							786		1,749,316		1,551,734	12,550
Pickaway.....									43,120		339,810	
Pike.....									500		198,941	
Preble.....							157		498,296		615,177	208,475
Ross.....	1						480		206,605		315,578	16,510
Scioto.....							63		180,297		348,047	
Warren.....							1,828		944,162		278,860	179,730
Totals.....	20				2		16,659		13,160,834		10,148,581	1,512,303
State Totals.....	142		93		31		54,457		82,714,922		45,365,502	11,330,578

AGRICULTURAL STATISTICS—Continued.
SOUTHWEST SECTION—Continued.

Counties.	Cheese.		Eggs.		Sorghum.		
	Pounds made in home dairies 1912.	Pounds made in factories and creameries 1912.	Number dozen produced 1912.	Number dozen shipped beyond state 1912.	Acres planted 1912.	Pounds of sugar 1912.	Gallons of syrup 1912.
Adams.....	.....	.....	892 320	21,755	.....	.....	762
Brown.....	.....	.....	1,173 821	400	.....	37	191
Butler.....	3,800	.....	788 017	200	7	.....	8
Clark.....	.....	.....	542 668	.....	8	.....	220
Clemont.....	1,320	3,750	1,105 899	.....	14	.....	562
Clinton.....	.....	.....	901 515	100	2	.....	127
Payette.....	50	.....	390 313	30,764	.....	.....	.....
Franklin.....	400	.....	960 209	.....	4	196	.....
Greene.....	1,000	550	805 715	.....	.....	.....	.....
Hamilton.....	3,100	.....	542 945	.....	.....	.....	550
Highland.....	150	.....	1,001 095	180	11	.....	.....
Madison.....	.....	.....	899 180	.....	.....	.....	.....
Miami.....	5,050	.....	981 121	58,000	.....	.....	542
Montgomery.....	12,038	.....	1,116 021	6	75	.....	574
Pickaway.....	.....	.....	440 275	30	8	.....	20
Pike.....	250	360	487 517	.....	17	.....	824
Preble.....	.....	.....	897 762	1,000	11	.....	609
Ross.....	2,040	.....	983 692	.....	6	.....	276
Scioto.....	200	.....	368 653	260	46	.....	2,848
Warren.....	.....	.....	702,210	.....	1	.....	60
Totals.....	29,398	4,660	15,566,185	112,695	218	233	8,183
State Totals.....	1,085,768	4,894,668	83,299,453	1,050,038	2,108	1,768	72,899

AGRICULTURAL STATISTICS—Continued.

SOUTHWEST SECTION—Continued.

Counties.	Commercial Fertilizers.			Grapes and Wine.				Gallons of Wine.	Orchards.	
	Pounds used during 1912.	Cost of fertilizers used during 1912.	Estimated pounds to be used during 1913.	Acres (new) vineyard 1912.	Whole No. of acres in vineyard 1912.	Pounds of grapes gathered in 1912.	Pressed in 1912.	Acres occupied 1912.	Bushels produced 1912.	Apples.
Adams.....	3,962,630	\$45,597	3,917,925	3	250	.....	.....	1,452	48,389	.....
Brown.....	3,423,820	37,780	2,752,225	.....	3	.....	300	1,314	17,045	.....
Butler.....	1,669,723	15,551	899,769	1	4	900	560	371	2,076	.....
Clark.....	2,244,475	23,884	1,585,526	.....	.....	4,550	.....	1,221	4,095	.....
Clermont.....	2,944,322	32,457	2,678,952	4	29	1,000	100	3,199	45,434	.....
Clinton.....	5,934,064	59,442	4,499,430	.....	.....	22,795	.....	795	3,207	.....
Fayette.....	5,178,125	37,170	3,048,800	.....	.....	.....	.....	131	265	.....
Franklin.....	4,876,150	37,967	4,140,400	2	.....	16,000	.....	2,385	9,936	.....
Greene.....	3,750,025	37,595	2,353,294	.....	1	8,000	.....	1,002	4,544	.....
Hamilton.....	8,924,525	8,645	690,950	3	141	22,175	978	1,422	16,667	.....
Highland.....	8,489,380	83,419	6,830,760	.....	.....	1,700	.....	1,868	5,831	.....
Madison.....	2,169,114	105,259	1,007,168	.....	.....	.....	25	504	1,800	.....
Miami.....	2,949,350	29,589	2,838,000	.....	.....	.....	.....	1,127	7,085	.....
Montgomery.....	3,300,855	38,131	4,969,519	15	5	14,200	100	1,028	7,569	.....
Pickaway.....	3,083,550	73,900	6,254,540	.....	.....	.....	.....	220	736	.....
Pike.....	3,141,660	29,797	2,761,629	.....	.....	.....	.....	1,933	39,433	.....
Pleble.....	8,180,800	75,584	7,553,660	.....	.....	.....	.....	1,500	3,164	.....
Ross.....	6,105,100	42,460	5,025,160	2	1	.....	120	2,361	40,499	.....
Scott.....	3,158,810	35,049	2,903,235	1	.....	.....	200	1,479	57,072	.....
Warren.....	2,951,900	31,441	1,855,550	42	.....	.....	.....	2,825	10,175	.....
Totals.....	83,538,378	900,697	68,479,202	73	434	91,320	2,378	28,643	324,506	.....
State Totals.....	303,507,885	3,481,509	254,672,412	402	6,378	18,435,748	287,062	219,908	8,401,838	.....

AGRICULTURAL STATISTICS—Continued.
SOUTHWEST SECTION—Continued.

Counties.	Orchards—Continued.							
	Peaches.		Pears.		Cherries.		Plums.	
	Acres occupied 1912.	Bushels produced 1912.	Acres occupied 1912.	Bushels produced 1912.	Acres occupied 1912.	Bushels produced 1912.	Acres occupied 1912.	Bushels produced 1912.
Adams.....	127	6,368	11	410	16	79	6	280
Brown.....	8	460	6	205	1			
Butler.....	5		15	980	18	198	8	61
Clark.....	63	663	30	1,718	51	1,186	5	233
Clermont.....	451	2,818	451	24,707	31	685	22	655
Clinton.....	11	6	21	260	70	10	3	77
Fayette.....	1	5	10	593	4	255		15
Franklin.....	32	682	34	4,780	12	545	18	463
Greene.....	18	12	19	1,717	6	269	3	130
Hamilton.....	348	2,120	487	24,358	33	725	38	2,681
Highland.....	32	338			10	1,000		
Madison.....	1	113	1	195	4	86	3	127
Miami.....	8	10	71	2,643	95	2,041	7	171
Montgomery.....	6	215	89	7,261	50	823	4	150
Pickaway.....	4		11		1	20		
Pike.....	206	9,080	10	530			3	65
Plebe.....	89	227	27	775	30	369	24	670
Ross.....	269	4,366	55	528	63	598	32	718
Scho.....	194	6,276	15	1,016		81	4	503
Warren.....	108	120	47	1,486	10	242	3	80
Totals.....	1,984	34,379	1,420	74,212	505	9,200	183	7,027
State Totals.....	19,160	696,993	3,755	200,417	1,562	55,523	1,124	70,260

AGRICULTURAL STATISTICS—Continued.
SOUTHWEST SECTION—Continued.

Counties.	Lands Owned in 1912						
	Orchards.		Number of acres cultivated.	Number of acres meadow.	Number of acres pasture.	Number of acres woodland.	Number of acres lying waste.
	Acres occupied 1912.	Bushels produced 1912.					
Adams.....	1		55,519	18,528	90,179	49,777	23,521
Brown.....	3	16	70,397	23,142	130,431	18,942	13,938
Butler.....	15	660	122,204	18,050	42,987	14,437	12,246
Clark.....	34	2,727	98,256	18,495	36,370	9,915	2,586
Clermont.....	260	8,302	67,610	36,398	97,772	15,906	17,115
Clinton.....	6	300	108,623	18,471	69,037	19,454	2,458
Fayette.....	5	800	81,159	10,077	52,777	6,783	1,079
Franklin.....	15	1,540	109,691	42,153	63,577	13,161	4,923
Greene.....	5	148	130,261	15,376	47,262	17,979	233,505
Hamilton.....	374	24,495	48,028	16,392	28,291	5,985	4,310
Highland.....	3	255	98,083	25,087	136,154	26,701	7,743
Madison.....	79	659	95,100	21,048	58,963	4,543	1,381
Miami.....	34	1,885	140,631	18,101	20,335	9,450	181,035
Montgomery.....	59	2,155	120,904	22,179	18,068	16,579	3,444
Pickaway.....			146,428	24,276	71,637	12,651	14,528
Pike.....	13	495	46,326	10,158	50,834	55,554	8,316
Preble.....	21	1,180	163,550	16,005	33,776	10,538	263,808
Ross.....	30	650	122,620	22,146	101,811	26,275	173,408
Scioto.....	44	1,968	44,814	13,259	36,291	6,449	241,721
Warren.....	9	700	107,242	23,340	64,482	17,065	16,934
Totals.....	1,000	48,924	1,982,446	412,681	1,251,034	438,015	27,905
							7,379
							193,577
							4,259,626
State Totals.....	4,182	201,659	7,877,671	2,548,031	6,204,114	2,076,612	678,808
							19,675,679

AGRICULTURAL STATISTICS—Continued.
SOUTHWEST SECTION—Continued

Counties.	Lime Kilns or Factories.	Tile Factories.	Horses	Cattle.			
				Beef cattle owned in April, 1913.	Milch cows owned in April, 1913.	All other cattle owned April, 1913.	Total number owned in April, 1913.
Adams.....			4,432	297	3,847	3,944	8,088
Brown.....			6,499	258	7,794	4,382	11,434
Butler.....			8,053	356	8,599	4,446	13,387
Clark.....	4	1	8,142	992	7,814	4,887	13,693
Clemont.....			6,956	435	9,185	3,485	13,109
Clinton.....			9,598	1,298	6,606	4,788	12,092
Payette.....			6,466	2,106	3,090	3,612	8,871
Franklin.....			11,480	745	11,496	6,575	18,816
Greene.....			9,161	711	7,675	5,918	14,307
Hamilton.....			4,375	166	6,345	911	7,422
Highland.....	1		8,076	727	6,738	7,626	15,291
Madison.....			8,933	2,030	4,740	5,928	12,698
Miami.....	2	1	9,431	399	8,349	3,492	12,150
Montgomery.....			10,128	175	11,222	4,105	15,399
Pickaway.....		4	8,718	1,123	5,223	8,854	15,200
Pike.....			3,065	82	2,027	2,580	4,689
Preble.....			10,046	418	8,262	5,482	13,572
Ross.....		74	11,388	2,133	5,160	11,012	18,305
Scioto.....		1	4,710	162	3,979	7,784	13,024
Warren.....			8,989	239	8,518	4,267	13,024
Totals.....	7	87	158,596	14,762	135,669	99,937	249,931
State Totals.....	51	150	657,142	49,852	675,902	406,789	1,131,550

AGRICULTURAL STATISTICS—Continued.

SOUTHWEST SECTION—Continued.

Counties.	Sheep.				Wool.	Hogs.	
	Number owned April, 1913.	Killed by dogs 1912.	Value.	Injured by dogs 1912.		Total number owned in April, 1913.	For summer markets, 1913.
Adams.....	5,596	101	\$194	19	\$47	7,391	1,586
Brown.....	7,156	115	483	18	59	16,617	3,225
Butler.....	5,805	87	544	18	88	21,193	7,200
Clark.....	15,532	181	615	76	232	22,213	8,553
Clermont.....	2,902	24	154	84	298	11,522	2,044
Clinton.....	15,690	63	270	15	42	41,921	21,690
Payette.....	12,567	41	159	5	14	27,153	16,013
Franklin.....	8,600	108	456	59	205	21,238	5,200
Greene.....	16,827	246	1,357	117	444	34,333	16,705
Hamilton.....	1,175	141	769	72	230	4,970	1,188
Highland.....	17,283	308	1,539	129	358	32,290	14,555
Madison.....	16,053	136	598	164	550	81,233	15,632
Miami.....	2,548	150	777	28	155	19,040	4,116
Montgomery.....	2,308	84	451	9	71	22,575	5,113
Pikeway.....	5,897	124	524	23	71	38,998	5,573
Pike.....	3,318	155	161	7	23	13,667	806
Peeble.....	4,425	47	811	22	143	27,123	9,844
Ross.....	10,876	129	446	56	576	48,516	8,677
Scioto.....	948	18	59	20	70	2,310	300
Warren.....	6,702	127	513	19	71	18,965	5,902
Total.....	162,231	2,285	\$10,887	904	\$3,673	430,470	154,571
State Totals.....	1,768,017	15,643	\$65,574	6,324	\$17,852	1,354,861	452,287

AGRICULTURAL STATISTICS—Concluded.
SOUTHWEST SECTION—Concluded.

Counties.	Domestic Animals Died From Diseases in 1912.							
	Horses.		Cattle.		Sheep.		Hogs.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Adams.....	92	\$7,295	91	\$2,930	205	\$786	201	\$1,928
Brown.....	153	11,550	149	3,913	340	1,455	725	6,403
Butler.....	234	22,725	249	8,072	257	1,266	10,718	92,098
Clark.....	176	18,637	269	6,232	230	809	4,204	29,454
Clermont.....	142	9,650	166	5,392	139	597	351	2,617
Clinton.....	145	13,105	124	4,514	468	1,525	5,835	36,578
Fayette.....	174	16,465	89	3,455	367	1,038	5,136	32,375
Franklin.....	369	34,810	317	12,625	333	1,168	7,263	50,950
Greene.....	167	17,190	113	3,753	176	2,569	4,572	28,610
Hamilton.....	158	9,070	193	6,392	204	264	2,550	2,550
Highland.....	123	12,695	93	3,253	559	2,515	7,732	20,573
Madison.....	234	28,465	123	4,798	453	2,061	7,196	51,173
Miami.....	323	33,465	189	7,004	483	871	835	9,293
Montgomery.....	295	30,705	236	8,286	186	683	2,879	21,122
Pickaway.....	277	29,895	171	8,456	250	973	12,354	88,787
Pike.....	107	1,898	78	2,454	140	568	165	1,277
Preble.....	240	22,910	142	4,790	265	1,213	4,980	46,905
Ross.....	294	28,640	175	5,780	333	1,274	9,018	58,784
Scioto.....	170	13,305	123	3,130	73	268	252	1,991
Warren.....	219	17,515	198	6,569	359	1,093	8,873	64,380
Totals.....	4,086	\$380,185	3,288	\$108,521	5,705	\$23,246	88,355	\$647,804
State Totals.....	14,156	\$1,411,478	12,220	\$436,719	35,595	\$125,767	168,383	\$1,282,464

AGRICULTURAL STATISTICS—TEN YEAR SCHEDULES.

Year.	Wheat.		Rye.		Buckwheat.	
	Acres sown for harvest.	Bushels produced.	Acres sown.	Bushels produced.	Acres sown.	Bushels produced.
1903	1,981,573	29,074,367	41,180	416,735	7,835	109,651
1904	1,730,623	11,090,222	42,996	550,924	1,338	224,475
1905	1,878,197	32,462,786	60,400	813,532	11,908	198,529
1906	2,022,784	39,279,680	41,867	586,260	12,002	212,268
1907	2,000,731	30,918,367	42,687	571,858	12,670	200,094
1908	1,832,639	28,955,496	52,895	613,571	13,752	208,918
1909	1,758,601	27,393,444	61,340	799,914	21,051	324,132
1910	1,950,298	31,802,274	69,070	777,686	14,667	190,589
1911	1,973,742	30,827,048	58,166	716,600	10,837	183,278
1912	1,349,456	10,856,948	86,066	1,138,126	14,814	288,476

Year.	Oats.		Winter Barley.		Spring Barley.	
	Acres sown.	Bushels produced.	Acres sown.	Bushels produced.	Acres sown.	Bushels produced.
1903	1,213,228	37,305,993	8,749	78,988	35,068	784,593
1904	1,467,062	58,312,740	1,784	38,493	30,669	833,514
1905	1,449,112	49,731,954	1,649	32,280	21,528	520,731
1906	1,344,247	44,179,762	1,614	47,960	13,045	395,801
1907	1,429,792	33,906,233	1,605	40,886	16,712	435,400
1908	1,281,805	34,363,980	1,879	36,478	17,825	386,416
1909	1,584,858	49,061,678	1,355	25,559	18,742	441,804
1910	1,427,383	49,834,715	1,365	25,559	17,825	441,804
1911	1,431,120	47,837,403	2,314	66,827	14,576	411,469
1912	1,896,260	80,146,974	2,627	60,415	21,197	507,407
				56,851	36,608	1,174,833

AGRICULTURAL STATISTICS—TEN-YEAR SCHEDULES.—Continued.

Years.	Corn.			Earlidge Corn.		Broom Corn.		Sugar Corn.	
	Acres planted.	Bushels produced (shelled).	Acres planted.	Acres planted.	Bushels produced.	Acres planted.	Pounds broom brush produced.	Acres planted.	Tons produced.
1903	2,945,473	92,820,349	24,917	227	138,483	9,371	138,483	9,371	32,886
1904	3,008,756	100,329,653	28,554	278	85,649	18,069	85,649	18,069	71,071
1905	2,865,190	108,538,592	26,373	220	80,910	19,244	80,910	19,244	77,600
1906	3,011,241	127,044,784	24,346	157	67,623	12,735	67,623	12,735	47,437
1907	2,891,113	100,620,305	31,934	191	128,246	8,117	128,246	8,117	42,555
1908	2,840,593	102,922,808	82,461	206	50,395	9,536	50,395	9,536	37,774
1909	3,331,595	127,218,227	88,244	112	43,897	11,898	43,897	11,898	40,946
1910	3,026,718	110,603,753	60,455	808	389,791	14,998	389,791	14,998	90,572
1911	1,846,618	112,122,314	55,501	483	127,418	19,474	127,418	19,474	68,848
1912	3,161,238	127,726,069	67,738	261	65,049	18,617	65,049	18,617	49,165

Years.	Tomatoes.		Peas.		Irish Potatoes.		Sweet Potatoes.	
	Acres planted.	Bushels produced.	Acres planted.	Bushels produced.	Acres planted.	Bushels produced.	Acres planted.	Bushels produced.
1903	4,342	661,462	656	617,449	109,811	9,997,613	655	55,077
1904	5,794	846,303	1,071	1,232,305	124,826	11,998,075	463	47,643
1905	4,994	635,972	1,154	1,200,448	131,338	10,957,796	1,156	60,996
1906	4,994	909,044	973	1,144,305	126,083	13,615,184	1,158	55,120
1907	6,493	947,923	1,982	1,288,173	126,737	10,825,659	501	45,560
1908	5,241	805,021	1,787	1,413,719	134,667	10,555,238	307	22,939
1909	6,585	982,754	3,615	2,632,530	151,611	14,511,973	718	41,534
1910	5,479	780,510	2,208	2,660,750	144,916	12,313,622	310	30,047
1911	5,995	954,527	3,918	2,299,657	121,556	9,368,922	364	35,663
1912	6,408	1,076,630	3,919	5,681,302	104,812	10,879,701	248	29,692

AGRICULTURAL STATISTICS—TEN YEAR SCHEDULES—Continued.

Years.	Onions.		Meadow.		Clover.			
	Acres planted.	Bushels produced.	Acres in grass (other than clover).	Tons of hay produced.	Acres grown.	Tons of hay produced.	Bushels of seed produced.	Acres plowed under for manure.
1903.....	12,723	930,632	1,975,387	2,370,842	816,323	972,580	335,272	108,587
1904.....	3,908	690,755	2,290,354	2,685,592	623,248	666,997	241,514	109,264
1905.....	6,719	677,733	1,871,290	2,222,021	995,668	1,219,405	266,240	177,166
1906.....	4,530	1,041,860	2,124,791	2,254,398	489,991	425,507	145,735	80,296
1907.....	4,294	1,446,490	2,475,129	3,068,777	281,856	293,524	871,911	45,992
1908.....	4,499	1,344,191	2,168,404	2,567,364	974,041	1,132,515	145,974	76,809
1909.....	4,639	1,289,667	2,739,212	2,767,659	538,318	565,322	141,849	97,313
1910.....	4,301	1,389,860	1,859,021	2,159,163	1,073,930	1,285,284	234,418	111,764
1911.....	5,750	1,548,870	2,887,708	1,884,287	643,240	638,873	124,757	107,065
1912.....	6,427	2,050,993	2,280,813	2,579,413	446,207	441,560	155,269	57,265

Years.	Alfalfa.		Flax.		Tobacco.		Milk.		
	Acres grown.	Tons of hay.	Acres sown.	Bushels of seed.	Pounds of fibre.	Acres planted.		Pounds produced.	Gallons sold for family use.
1903.....			1,826	16,138	1,245,005	50,877	39,343,870	45,823,607	
1904.....			1,117	11,941	343,460	58,451	49,944,056	49,352,951	
1905.....	10,832	24,890	1,114	9,179	890,096	55,625	55,332,685	58,004,027	
1906.....	13,925	29,642	1,002	13,470	946,388	70,950	70,706,878	75,968,007	
1907.....	12,552	22,560	840	4,853	539,450	73,858	56,744,968	53,261,454	
1908.....	16,236	32,138	610	5,325	298,002	60,987	42,330,236	64,235,921	
1909.....	21,794	49,796	514	4,225	351,900	91,701	72,273,052	65,994,291	
1910.....	23,477	53,768	3,351	45,911	181,995	84,553	67,107,409	65,621,395	
1911.....	25,159	54,513	1,477	10,836	529,891	64,776	64,678,567	69,351,938	
1912.....	27,699	56,140	1,749	16,843	657,611	59,896	55,828,741	82,714,922	

AGRICULTURAL STATISTICS—TEN YEAR SCHEDULES—Continued.

Years.	Butter.		Cheese.		Eggs.	
	Pounds made in home dairies.	Pounds made in creameries.	Pounds made in home dairies.	Pounds made in creameries.	Number dozen produced.	Number dozen shipped beyond state.
1903.	46,510,481	7,537,848	2,102,866	12,309,415	61,424,927	1,273,298
1904.	46,793,854	7,071,753	1,783,968	13,149,892	63,776,986	2,377,100
1905.	47,634,723	8,381,406	1,202,717	12,671,152	68,322,894	1,585,880
1906.	46,203,105	8,290,688	2,140,431	13,259,346	82,849,942	1,755,981
1907.	47,941,752	6,484,567	1,421,181	9,555,133	73,759,953	849,706
1908.	48,025,333	7,941,513	1,919,844	8,591,072	72,160,393	675,289
1909.	49,280,511	16,900,634	2,091,049	6,944,983	85,119,678	747,810
1910.	47,555,075	11,864,524	845,086	13,759,906	88,183,810	940,020
1911.	46,152,997	15,363,573	755,280	5,094,617	81,133,895	1,578,795
1912.	45,366,502	11,380,578	1,086,768	4,894,668	83,299,453	1,060,038

Years.	Sorghum.		Maple Products.			Honey.		Bees.	
	Acres planted.	Pounds of sugar.	Gallons of syrup.	Number trees from which sugar or syrup was made.	Pounds of sugar.	Gallons of syrup.	Pounds of honey.	Number of hives.	
1902.	2,648	2,384	85,213	3,090,704	281,841	905,875	475,944	29,463	
1903.	2,251	3,023	98,369	1,862,967	130,847	493,883	449,498	31,127	
1904.	2,047	4,240	103,802	2,988,519	231,307	989,334	487,016	37,614	
1905.	2,197	3,134	81,619	2,597,110	73,005	440,485	353,162	28,413	
1906.	1,501	1,466	46,554	3,976,911	169,226	950,305	344,738	57,814	
1907.	1,096	8,923	62,075	2,964,975	269,381	1,274,115	730,643	102,267	
1908.	2,222	5,600	124,117	2,811,268	95,891	727,346	375,983	58,617	
1909.	1,580	6,756	59,310	2,676,170	150,491	957,871	418,412	46,922	
1910.	1,784	2,384	68,450	2,516,977	42,986	583,351	308,523	26,387	
1911.	2,168	1,768	72,899	2,474,043	54,488	474,289	19,842	281,330	

AGRICULTURAL STATISTICS—TEN YEAR SCHEDULES—Continued.

Years.	Commercial Fertilizer.				Grapes and Wine.			
	Pounds used.		Cost of fertilizers used.		Acres (new) vineyard planted.	Whole number of acres in vineyard.	Pounds of grapes gathered.	Gallons of wine pressed.
1903.....	189,857,217	1,784,788	1,784,788	1,581	1,581	11,892	17,728,151	223,322
1904.....	202,709,698	1,932,792	1,932,792	1,713	1,713	11,011	15,846,580	235,365
1905.....	230,615,398	2,228,190	2,228,190	964	964	12,568	19,668,102	85,780
1906.....	242,707,109	2,428,752	2,428,752	6,493	6,493	20,108	15,363,811	323,529
1907.....	236,042,803	2,433,627	2,433,627	529	529	17,399	15,389,057	107,141
1908.....	232,517,524	3,764,483	3,764,483	491	491	19,188	13,408,438	251,510
1909.....	292,767,506	3,139,702	3,139,702	4,065	4,065	12,142	17,758,102	207,873
1910.....	349,016,233	4,220,591	4,220,591	1,943	1,943	6,916	8,683,407	57,077
1911.....	320,152,047	3,895,915	3,895,915	569	569	20,514	18,636,871	39,936
1912.....	303,507,885	1,784,788	1,784,788	402	402	6,378	18,436,748	287,062

Years.	Orchards.				Other Small Fruit.			
	Apples.		Peaches.		Pears.		Plums.	
	Acres occupied.	Bushels produced.	Acres occupied.	Bushels produced.	Acres occupied.	Bushels produced.	Acres occupied.	Bushels produced.
1903.....	248,743	8,841,445	25,516	385,120	3,183	85,437	1,076	54,666
1904.....	260,887	9,984,703	27,949	1,001,912	3,725	160,169	2,626	158,825
1905.....	241,765	2,773,067	21,898	589,688	2,995	81,437	1,574	5,350
1906.....	235,814	11,746,220	15,162	492,861	3,173	102,196	1,377	37,472
1907.....	243,716	2,474,252	17,449	268,284	2,841	41,501	1,143	27,250
1908.....	221,282	4,029,428	18,866	646,234	3,804	138,300	1,407	16,141
1909.....	240,660	3,058,685	20,345	455,852	3,689	102,000	1,339	54,305
1910.....	272,752	4,914,486	19,828	61,141	3,453	116,650	1,737	32,477
1911.....	271,907	12,746,045	19,566	690,014	3,134	245,566	1,450	43,362
1912.....	219,968	8,401,838	19,160	696,993	3,755	200,417	1,895	58,329
							1,124	70,260
								238,525
								199,857
								224,513
								261,975
								285,901
								216,515
								213,439
								179,037
								251,464
								261,659

AGRICULTURAL STATISTICS—TEN YEAR SCHEDULES—Concluded.

Years	Lands Owned.					Horses.		Cattle.			
	Number of acres cultivated.	Number of acres pasture.	Number of acres woodland.	Number of acres lying waste.	Total number of acres owned.	Number owned.	Value.	Beef cattle owned.	Milk cows owned.	All other cattle owned.	Total number cattle owned.
1903.....	9,340,149	6,225,455	2,484,891	532,113	18,682,608	558,487		68,625	678,731	553,440	1,300,796
1904.....	9,165,882	6,020,446	2,470,801	664,782	18,921,913	572,078		58,901	688,645	529,329	1,276,875
1905.....	8,949,158	6,090,891	2,431,212	637,558	19,008,819	567,108		61,902	688,492	513,460	1,263,854
1906.....	8,703,239	6,857,336	2,461,181	707,044	18,728,800	568,327		54,678	669,457	459,142	1,183,295
1907.....	8,645,657	7,275,969	2,275,969	637,333	18,824,962	575,782		54,749	668,936	433,334	1,157,019
1908.....	8,156,090	7,889,621	2,365,397	698,763	19,331,937	589,800		50,924	669,642	441,796	1,151,694
1909.....	9,209,335	7,919,138	2,511,833	734,592	19,613,688	625,688		55,925	692,442	461,713	1,210,457
1910.....	9,116,197	7,462,914	2,340,573	771,594	19,873,664	639,283		56,211	709,206	467,539	1,234,069
1911.....	8,849,858	7,559,913	2,265,531	759,634	19,640,316	659,402		44,020	659,746	421,971	1,164,235
1912.....	10,425,792	6,204,114	2,076,612	678,808	19,675,679	657,182		49,892	675,902	406,789	1,131,550

Years.	Sheep.					Hogs.		Wool.	
	Number owned.	Killed by dogs.	Value.	Injured by dogs.	Value.	Total number owned.	For summer markets.	Pounds shorn.	
1903.....	1,782,121	18,543	62,140	10,413	21,973	1,397,910	318,165	11,762,687	
1904.....	1,809,226	19,435	82,332	20,209	26,893	1,264,107	286,479	11,426,576	
1905.....	1,936,392	16,607	73,169	9,213	26,207	1,170,189	291,101	11,826,237	
1906.....	2,017,325	14,892	68,799	9,135	26,641	1,436,651	465,154	12,789,451	
1907.....	2,162,519	15,539	74,327	8,932	29,554	1,522,632	359,646	13,394,168	
1908.....	2,290,359	12,731	59,270	7,175	19,552	1,233,044	279,604	13,752,002	
1909.....	2,296,422	15,009	69,404	7,088	20,769	1,141,037	333,340	16,396,633	
1910.....	2,466,831	15,187	66,717	7,143	19,118	1,393,675	404,421	15,767,667	
1911.....	2,098,213	17,630	67,959	7,134	16,613	1,401,223	398,952	15,711,368	
1912.....	1,768,017	15,643	65,574	6,324	17,852	1,354,861	452,287	12,959,110	

Years.	Domestic Animals Died From Diseases.					Hogs.	
	Horses.		Cattle.		Sheep.	Hogs.	Value.
	Number.	Value.	Number.	Value.	Number.	Number.	Value.
1903.....	11,808	\$803,556	16,643	\$395,902	36,371	137,490	\$734,585
1904.....	12,772	854,766	16,492	379,822	33,508	72,234	366,681
1905.....	12,352	870,436	14,879	355,948	40,406	74,914	415,415
1906.....	12,189	997,611	13,683	341,982	40,398	57,533	370,284
1907.....	15,156	1,223,180	14,900	376,074	45,123	58,075	354,138
1908.....	13,613	1,111,495	12,441	345,680	37,178	77,586	414,811
1909.....	16,120	1,401,134	14,544	419,133	59,450	65,253	398,842
1910.....	14,948	1,408,820	15,079	445,473	46,252	83,463	603,066
1911.....	21,328	1,647,505	16,226	451,991	161,097	212,584	1,332,212
1912.....	14,156	1,411,478	12,220	436,719	125,767	168,383	1,282,464

TABLES OF COMPARATIVE STATISTICS AS COMPILED BY THE SECRETARY OF AGRICULTURE

COMPARATIVE TABLE SHOWING PRODUCTION OF WHEAT IN OHIO FOR TEN YEARS.

Counties.	Number of Bushels.									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams	116,212	118,537	121,334	193,445	164,956	167,985	195,150	194,193	175,516	148,545
Allen	31,440	270,170	121,252	156,065	226,305	173,196	163,343	386,417	201,866	324,217
Ashland	67,928	285,536	519,669	538,859	424,308	474,997	565,032	396,849	259,605	526,045
Ashabula	85,755	154,287	90,588	90,530	86,317	98,012	106,717	105,991	18,432	134,833
Ashtabula	88,377	105,275	90,668	90,530	86,317	98,012	106,717	105,991	18,432	93,066
Auglaize	45,011	422,072	429,987	429,987	472,344	226,706	735,251	523,108	332,561	487,851
Belmont	121,821	191,523	252,946	183,356	147,566	195,753	247,259	193,872	124,511	274,261
Brown	104,605	176,246	166,542	224,429	180,048	203,315	215,128	214,685	158,472	149,303
Butler	316,116	773,734	675,658	479,703	791,173	864,486	1,147,199	929,657	654,191	707,537
Carroll	120,322	141,356	202,059	101,863	190,061	177,992	220,743	169,941	121,654	198,306
Champaign	192,512	438,072	383,183	208,707	399,003	422,765	513,749	382,266	180,371	458,138
Clark	140,797	478,102	435,769	242,663	362,417	501,439	522,098	464,266	275,020	399,583
Clermont	78,780	166,451	152,202	195,950	150,184	219,341	208,195	158,973	86,641	100,295
Clinton	289,071	634,747	574,340	506,293	541,259	802,370	769,139	644,864	489,514	459,857
Columbiana	185,319	256,377	390,757	343,657	339,798	315,576	363,837	299,583	264,923	360,164
Coshocton	154,816	315,926	339,640	397,923	280,325	311,704	391,203	281,275	148,294	303,451
Crawford	44,447	286,945	626,439	415,897	433,517	562,343	539,645	537,459	390,777	401,127
Cuyahoga	36,649	102,895	162,125	137,696	125,635	132,725	160,613	155,941	89,477	141,496
Darke	135,063	713,881	676,388	353,136	838,888	691,013	1,217,299	940,446	335,161	815,840
Defiance	460,370	293,847	293,847	236,720	250,947	353,897	301,748	323,417	174,806	150,951
Delaware	53,052	284,103	284,842	234,511	187,485	256,460	260,729	293,417	178,772	243,747
Erle	319,845	319,845	302,106	302,106	278,961	267,091	353,825	399,347	606,372	585,493
Fairfield	461,281	845,323	689,917	672,907	477,466	696,444	773,091	698,433	392,219	425,866
Fayette	297,071	636,455	581,951	506,028	392,519	449,233	584,232	517,438	415,764	348,855
Franklin	106,078	720,262	551,372	505,240	397,734	449,233	584,232	435,088	125,959	173,507
Fulton	8,004	388,492	294,383	233,487	260,925	260,036	229,581	254,696	110,384	118,478
Gallia	80,285	388,492	101,589	121,254	114,131	155,534	141,456	110,384	88,537	113,607
Geauga	51,055	109,172	109,172	69,784	86,463	99,372	95,066	107,843	39,693	115,501
Greene	196,592	647,892	632,072	316,458	581,677	721,592	800,772	608,970	357,349	598,092
Guernsey	151,706	151,706	151,706	151,706	151,706	151,706	151,706	151,706	151,706	151,706
Hamilton	110,852	285,410	292,106	131,239	207,020	146,038	180,838	142,163	97,442	143,339
Hancock	23,952	157,397	131,938	403,307	454,991	558,095	298,278	237,689	140,508	425,715
Hardin	26,866	178,684	117,942	78,838	137,517	228,464	738,245	626,310	298,599	509,804
Harrison	111,863	131,936	117,942	199,433	137,517	228,464	301,897	331,509	132,458	503,581
Henry	2,830	532,149	291,093	403,608	429,379	128,368	163,943	166,969	161,842	161,842
HIGHLAND	352,841	442,172	391,093	403,608	429,379	128,368	163,943	166,969	161,842	161,842
Hocking	112,454	166,362	109,592	539,092	377,514	512,444	139,113	142,952	118,155	129,578
Holmes	278,480	348,030	460,988	259,364	440,373	126,644	435,285	304,785	237,257	456,296
Huron	97,748	443,841	733,330	461,233	632,445	597,518	815,584	896,998	355,487	475,545
Jackson	61,890	77,992	76,594	84,547	97,911	71,013	78,966	60,737	50,620	67,904
Jefferson	111,893	185,336	169,376	145,215	149,526	150,790	189,302	148,687	58,091	183,173

Knox	258,404	385,419	73,263	48,338	54,010	57,133	68,415	420,960	419,860	429,047
Lake	36,731	57,903	429,047	438,457	430,728	420,481	429,070	54,319	20,185	55,527
Lafayette	22,146	17,560	323,024	437,415	430,728	420,481	429,070	32,614	27,223	31,141
Lewis	247,143	578,993	494,710	417,631	297,168	271,943	51,947	393,717	334,277	393,272
Logan	88,715	193,773	143,512	100,692	297,168	417,631	493,948	299,337	99,640	374,444
Lorain	48,898	328,898	481,647	330,698	366,963	336,513	463,948	404,648	258,238	325,860
Lucas	5,484	338,898	127,283	163,133	136,797	141,257	153,684	153,684	53,864	128,761
Madison	134,009	460,713	335,681	306,775	314,366	366,929	241,978	151,338	194,258	136,341
Mahoning	85,934	188,868	213,074	257,129	245,206	366,929	241,978	391,685	194,258	274,480
Marion	42,991	267,251	284,797	203,918	216,671	212,167	225,790	279,290	292,534	323,558
Medina	95,652	298,196	530,109	540,961	430,020	431,229	485,644	435,326	308,977	185,583
Mercer	118,643	140,687	147,690	169,018	131,169	140,929	164,146	137,140	119,169	145,070
Miami	84,631	448,635	403,676	246,446	433,697	224,517	887,215	706,498	417,368	450,140
Montgomery	93,597	598,771	535,827	248,743	640,810	533,489	962,934	945,555	406,268	619,193
Monroe	114,037	138,147	144,008	140,638	103,847	149,367	188,084	167,226	138,439	213,103
Morgan	131,135	169,984	155,180	155,498	99,553	149,585	184,265	179,101	160,337	207,837
Morrow	50,165	212,075	314,023	273,168	217,445	306,614	299,551	275,155	207,837	276,293
Muskingum	235,759	351,930	312,075	273,168	217,445	306,614	299,551	275,155	207,837	276,293
Noble	108,760	110,483	123,764	127,639	80,295	141,680	174,367	155,507	106,084	153,181
Oak	3,339	236,341	240,906	123,113	176,618	243,861	300,688	230,048	122,532	171,418
Oak	2,233	179,480	114,235	107,157	161,740	156,025	313,559	201,098	104,008	153,925
Paulding	255,453	255,453	216,626	234,032	128,001	227,624	273,424	213,817	317,231	181,779
Perry	170,971	218,040	1,019,091	1,202,498	937,126	1,164,464	980,728	982,922	729,031	634,030
Perryway	579,495	166,594	139,365	221,018	187,050	173,318	198,010	141,795	133,089	94,178
Pike	138,395	385,649	385,649	380,592	344,056	313,778	311,303	337,380	239,819	348,747
Portage	246,347	797,143	642,387	432,605	784,004	80,190	1,075,414	756,980	327,387	531,004
Putnam	9,360	421,154	326,312	270,644	456,480	415,315	831,022	590,716	363,954	525,643
Richland	103,778	314,547	645,860	675,969	559,236	582,535	673,544	581,504	363,954	607,350
Ross	559,065	677,937	571,976	647,354	620,650	703,399	763,752	664,366	463,782	449,398
Sandusky	3,621	750,546	566,794	550,580	547,575	535,228	729,257	519,199	259,329	449,398
Scioto	166,470	174,238	175,409	202,705	183,401	191,607	218,898	164,886	164,860	130,278
Seneca	184,353	774,015	1,092,579	873,292	949,314	1,056,668	1,286,689	964,438	547,829	723,383
Shelby	32,052	36,503	485,328	293,691	503,032	297,797	586,556	464,576	349,980	891,259
Stark	552,183	282,698	875,273	865,943	888,385	784,004	941,132	753,267	601,387	827,288
Summit	139,691	139,691	455,361	469,259	481,279	384,244	484,101	161,527	70,359	207,699
Tallmadge	185,885	244,993	287,625	163,858	139,477	362,784	423,472	356,607	190,983	408,564
Tuscarawas	185,885	244,993	287,625	163,858	139,477	362,784	423,472	356,607	190,983	408,564
Union	68,397	246,943	273,310	138,732	147,844	241,276	202,734	189,160	166,324	170,175
Van Wert	195,749	160,309	87,980	87,980	208,481	190,274	557,134	414,017	278,222	322,420
Vinton	22,181	54,594	52,545	54,594	32,346	32,346	55,235	48,029	40,685	55,961
Warren	422,901	353,983	285,845	285,845	324,282	536,752	611,144	444,263	304,870	355,854
Washington	135,377	239,565	165,937	139,565	165,937	216,164	295,170	290,031	219,297	251,281
Wayne	212,303	705,144	261,267	1,338,882	983,026	835,668	1,094,255	750,504	629,155	900,144
Williams	154,012	368,453	1,171,469	1,338,882	983,026	835,668	1,094,255	750,504	629,155	900,144
Wood	9,609	368,453	373,080	319,594	273,550	235,451	312,658	312,658	187,200	231,849
Wyandot	4,787	341,343	341,343	341,343	420,430	420,430	573,324	502,459	157,958	455,687
Wyandot	16,661	386,896	451,309	382,689	375,247	514,649	565,010	419,027	279,306	335,328
Total products.....	10,856,948	30,240,828	31,953,274	27,393,444	26,955,496	30,318,367	39,279,689	32,462,786	21,090,222	29,074,367
Total area.....	1,349,436	1,984,395	1,950,228	1,738,691	1,822,639	2,009,731	2,022,784	1,878,197	1,730,633	1,981,573

COMPARATIVE TABLE SHOWING PRODUCTION OF BARLEY IN OHIO FOR TEN YEARS.

Counties.	Number of Bushels. (Includes Fall and Spring Barley.)									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams.....	43,136	100	19,916	20,807	15,412	12,270	4,468	5,507	5,635	4,237
Allen.....	2,363	26,319	811	1,201	521	706	723	836	1,216	2,651
Ashland.....	573	829	958	404	434	448	233	570	575	636
Ashland.....	27,894	31	5,151	2,431	250	3,054	200	1,107	336	512
Augsauge.....	335	11,428	5,151	2,431	1,509	3,054	18,055	360	1,120	78
Belmont.....	70	655	560	190	324	185	900	1,077	156	80
Brown.....	23,496	9,310	4,911	13,705	16,815	11,820	11,890	11,335	26,124	35,196
Butler.....	2,496	122	1,197	2,275	15	100	280	4,383	1,890	45
Carroll.....	35	12,330	3,580	2,717	110	4,294	490	3,675	2,520	2,060
Champaign.....	400	236	12	40	1,180	1,123	1,060	753	518	620
Clark.....	2	550	2,115	830	15	45	2,330	2,232	60	90
Columbiana.....	2	54	30	152	130	14	30	65	84	65
Coshocton.....	4	3,092	70	28	1,971	1,600	1,346	1,481	825	118
Crawford.....	8,250	510	2,236	1,913	1,105	910	50	498	110	194
Cuyahoga.....	925	477	477	788	1,105	1,328	1,553	1,835	2,430	2,516
Darke.....	5,767	1,953	4,793	2,143	760	20,472	17,480	31,534	48,274	52,472
Defiance.....	54,143	30,004	21,202	28,136	19,577	317	185	360	9,190	6,555
Delaware.....	30	649	28	369	28	5,631	3,900	4,220	250	1,335
Delaware.....	23,484	10,656	6,099	2,722	4,497	548	35	431	360	140
Erie.....	520	160	1,244	511	130	1,200	405	975	380	340
Fairfield.....	364	850	503	681	170	45,444	34,961	38,529	33,319	29,123
Fayette.....	981	16,770	16,770	30,065	35,674	818	60	20	150	160
Franklin.....	123,813	43,291	32,767	156	130	4,085	761	511	150	160
Fulton.....	105	165	140	376	376	311	761	761	150	160
Gallia.....	4,770	2,520	2,326	156	130	4,085	761	511	150	160
Geauga.....	827	403	672	999	236	311	761	761	150	160
Greene.....	2,196	1,527	548	1,066	1,430	750	1,022	1,022	98	75
Guernsey.....	32,352	13,141	6,002	7,647	7,647	7,647	3,351	385	2,394	4,820
Hamilton.....	5,697	2,450	2,259	1,025	2,195	740	3,351	10,228	4,537	4,880
Hancock.....	118	30	335	175	205	205	385	207	1,714	1,414
Hardin.....	140,533	64,122	53,606	54,137	57,004	65,215	83,138	94,730	165,424	88,753
Harrison.....	230	1,100	1,325	84	25	1,100	440	1,137	1,080	500
Henry.....	110	690	84	467	229	962	1,020	1,506	580	1,285
Hocking.....	5,230	1,611	1,098	1,829	2,030	962	1,020	1,506	580	1,285
Holmes.....					200					200
Huron.....										
Jackson.....										

	60	160	275	145	40	35	298	80	320	200
Jefferson.....	850	100	185	251	611	1,321	925	875	3,402	178
Knox.....	794	1,036	809	916						1,234
Lake.....	1,580		4							620
Lawrence.....	250			135	320	285	60	720	816	2,533
Licking.....	19,451	8,208	9,579	7,118	2,385	5,350	3,630	4,556	1,536	1,125
Logan.....	11,749	2,739	3,492	4,496	3,226	1,290	2,474	2,694	1,275	16,130
Lucas.....	88,479	44,000	39,250	26,704	41,787	35,733	31,550	26,995	20,192	800
Madison.....	1,400	1,400	3,536	1,137	905	4,140	1,144	4,112	1,392	
Mahoning.....	13,760			75			560	384		200
Marion.....	188		1,398	845	512	215	1,541	655	560	438
Medina.....	1,493	270	450	642	1,890	1,229	553	2,048	24	
Meigs.....	25		50	35			4,930	20	24	
Merger.....	54,940	24,790	26,672	18,130	9,031	9,962	140	13,588	23,046	15,439
Miami.....	500		109	765	19	300		358		
Mianee.....	30	107	67	54			1,300	1,608	32	100
Monroe.....	3,870	2,381	3,050	3,260	1,385	375	119	875	875	1,670
Montgomery.....				124		2		100	48	
Morgan.....	80		307	180		25	184		120	740
Morrow.....	73			90		8		220		
Maskingum.....	103	409	265	271	80		37,550	37,596	167,008	59,467
Noble.....	86,976	52,291	28,294	2,335	34,932	37,407	20,240	49,507	138,450	140,450
Osawa.....	17,497	6,599	4,402	6,927	9,458	9,124	80	276		
Paulding.....	1		130		56					
Perry.....										
Pickaway.....										
Pike.....										
Portage.....	71		82	48	40	40	400	316	375	436
Preble.....	930	450	1,415	1,798	149	100	461	198	198	
Putnam.....	151,019	66,915	58,706	55,617	262	162	900	230	378	
Richland.....	1,373	462	570	571	34,932	1,950	25,488	1,430	551	277
Ross.....	5,050	260	180	65	1,240	40,348	1,052	46,606	49,300	52,639
Sandusky.....	66,114	10,933	10,105	6,866	7,896	1,496	190	840	1,472	2,164
Scioto.....	330	140				375	5,583	657	468	20
Seneca.....	2,257					4,563		2,134	10,180	7,904
Shelby.....	5,881	2,257	1,889	1,329	3,874	4,800	375	1,558	6,048	1,358
Stark.....	6,762	4,761	573	260	350	954	80	370	24	24
Summit.....	64	787	1,532	389	47	81	1,771	292	462	199
Tumbull.....	80	120	105	1,072	1,093	1,227	550	1,726	713	840
Tuscarawas.....	290	19	810	60	200	21	135	30	1,000	128
Union.....	610		992	304	328	1,708	899	75	770	600
Van Wert.....	41,860	22,139	17,915	39,445	33,140	41,155	587	50,613	88,780	125,249
Vinton.....										
Washington.....	6,403	1,750	5,545	14,920	1,010	6,260	2,350	1,350	3,438	10,015
Wayne.....	1,156		202	160			106	88	88	54
Williams.....	75		421	504	519	320	725	627	484	1,080
Wood.....	66,283	25,326	27,697	31,833	33,900	36,694	53,549	37,639	42,543	40,536
Wyandot.....	74,586	37,951	31,579	25,332	34,418	32,825	18,308	38,712	68,100	81,891
WYandot.....	2,436	1,014	1,754	736	411		1,260	564	6,525	5,775
Total product.....	1,231,684	576,030	478,296	467,463	432,894	476,236	443,751	552,991	975,192	813,581
Total area.....	39,235	24,779	16,890	20,097	19,704	18,317	14,659	23,177	35,398	38,817

Average area for 10 years, 25,108 acres.
Average product for 10 years, 644,812 bushels.

COMPARATIVE TABLE SHOWING PRODUCTION OF RYE IN OHIO FOR TEN YEARS.

Counties.	Number of Bushels.									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams.....	9,671	5,985	4,213	4,338	2,985	1,774	1,535	4,021	6,935	3,075
Allen.....	81,928	58,170	41,773	37,087	37,948	15,556	14,877	4,021	3,151	2,989
Ashtabula.....	13,431	2,994	4,629	7,434	5,072	12,844	3,431	3,652	2,814	5,519
Ashland.....	8,472	7,488	19,520	15,824	10,455	11,455	15,977	21,036	6,362	12,115
Athens.....	2,005	1,331	16,795	300	11,088	6,346	80	396	1,020	5,555
Auglaize.....	4,073	9,375	16,795	6,759	11,088	2,284	7,871	7,842	3,470	2,184
Belmont.....	8,559	2,771	2,210	2,284	7,757	2,286	1,882	1,828	1,440	2,912
Brown.....	24,806	15,948	19,953	43,197	16,063	11,111	6,948	19,000	28,784	13,146
Butler.....	12,763	7,238	5,228	3,044	2,324	1,862	3,078	4,546	3,789	3,789
Carroll.....	1,805	516	1,048	1,250	1,118	1,565	1,203	1,596	3,111	4,482
Champaign.....	17,604	12,359	20,907	14,305	14,828	15,141	9,510	15,294	5,562	4,569
Clark.....	15,614	27,164	21,892	13,917	10,486	11,598	11,526	25,368	5,890	5,403
Clermont.....	13,597	14,848	17,694	28,807	12,606	10,121	8,804	25,448	20,566	9,170
Clinton.....	24,436	17,952	16,578	29,503	9,075	5,652	5,896	12,761	10,278	6,716
Columbiana.....	4,283	1,225	4,432	4,133	3,213	2,493	2,358	3,183	2,309	2,401
Coshocton.....	7,954	2,665	2,135	2,773	1,713	1,394	2,152	2,562	1,671	1,783
Crawford.....	5,379	1,554	1,491	2,555	1,502	1,551	1,080	769	1,370	1,086
Cuyahoga.....	2,973	3,795	9,584	13,859	10,254	8,071	10,732	18,410	6,853	9,482
Darke.....	47,705	31,504	25,733	10,179	17,073	11,610	9,885	18,230	4,741	3,455
Defiance.....	8,265	4,349	2,924	3,315	5,341	12,151	3,797	9,244	5,596	1,377
Delaware.....	13,703	14,012	24,992	23,128	10,769	8,027	7,269	10,638	6,424	6,971
Erie.....	8,844	5,074	8,805	6,961	5,625	5,357	6,378	8,648	2,848	5,086
Fairfield.....	5,522	5,489	6,491	17,306	3,710	3,036	992	4,337	5,993	5,086
Fayette.....	6,975	7,109	3,494	7,595	520	2,115	10,471	12,169	7,636	1,708
Franklin.....	4,837	10,335	23,159	21,178	8,606	8,985	6,339	23,492	23,071	12,556
Fulton.....	3,471	2,977	3,139	11,599	9,517	14,408	13,718	19,418	6,389	11,229
Gallia.....	4,186	5,916	615	912	1,200	840	577	2,213	3,132	3,412
Geauga.....	40,668	1,382	3,933	3,636	2,083	2,955	3,165	5,903	1,363	2,640
Greene.....	24,067	23,141	23,141	11,868	7,459	12,227	15,265	33,711	12,047	3,673
Guernsey.....	2,980	2,969	1,882	2,788	1,213	2,013	1,651	1,947	1,466	1,554
Hamilton.....	7,306	6,946	9,869	7,632	3,644	8,892	5,354	9,353	5,483	11,080
Hancock.....	27,070	18,556	14,024	12,491	11,828	10,622	6,954	8,055	3,359	4,328
Hardin.....	69,959	54,324	38,719	20,931	12,919	12,318	9,583	9,722	2,285	5,361
Harrison.....	1,491	470	702	381	311	610	303	920	646	177
Henry.....	4,251	5,894	1,341	7,830	13,873	23,454	21,458	33,795	21,349	27,217
Highland.....	21,946	9,817	9,672	23,031	3,369	3,442	6,865	6,865	8,910	2,628
Hocking.....	2,308	918	9,672	963	662	683	262	1,286	1,975	2,188
Holmes.....	6,516	2,783	2,311	6,013	3,071	3,317	2,292	3,395	3,647	883
Huron.....	3,137	902	1,840	3,907	3,545	1,720	2,230	3,373	1,405	330
Jackson.....	1,497	386	262	1,145	151	756	326	736	644	684
Jefferson.....	5,815	2,684	1,480	1,145	536	1,457	784	1,006	495	537
Knox.....	27,973	10,300	8,841	11,166	6,031	5,900	5,349	5,306	5,186	7,403

CROP AND OTHER STATISTICS

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Lake	6,103	6,173	12,918	15,842	11,082	11,185	9,517	17,872	7,428	9,165
Lawrence	783	345	38	83	71	122	308	211	205	504
Licking	37,611	23,764	30,051	39,683	12,870	8,133	12,021	16,180	28,194	18,433
Logan	43,700	29,897	26,437	13,033	27,436	24,526	37,815	24,894	10,552	11,035
Lorain	3,740	2,091	4,083	6,331	7,010	2,907	7,384	7,971	10,132	3,825
Lucas	8,581	12,324	17,222	17,982	18,571	24,367	25,610	24,088	8,901	7,918
Madison	6,998	5,869	10,378	4,184	3,451	6,852	4,581	12,998	7,901	7,916
Madison	1,737	959	4,510	10,850	6,706	3,317	2,423	13,179	2,763	3,154
Marion	18,305	7,102	3,835	1,737	1,760	3,679	3,118	5,493	4,937	4,401
Medina	2,945	1,879	4,601	11,000	13,913	9,279	9,593	17,908	8,410	10,985
Mega	2,183	559	1,147	1,566	567	227	303	2,320	4,028	1,966
Mercer	33,847	11,093	10,845	3,713	12,487	6,731	6,344	6,127	2,857	1,966
Miami	8,807	4,713	3,987	1,940	1,901	1,866	1,718	4,416	905	892
Monroe	9,852	6,752	4,099	4,797	1,325	2,021	1,659	2,160	2,087	2,847
Montgomery	17,656	13,849	9,271	6,286	4,569	4,916	4,871	9,216	3,762	1,858
Morgan	2,163	997	904	1,611	468	415	1,231	1,659	1,747	1,389
Morrow	15,238	4,934	8,698	12,443	5,133	7,462	3,738	5,685	2,776	6,808
Muskingum	5,362	3,739	4,950	2,807	2,536	2,643	3,586	5,291	6,358	5,643
Noble	1,214	633	590	1,187	353	608	925	1,982	880	1,286
Ottawa	4,125	2,833	2,833	2,605	8,338	9,825	10,300	7,963	1,920	2,280
Paulding	14,774	16,718	9,038	9,788	24,640	25,759	48,338	31,006	84,277	9,902
Perry	3,665	2,796	1,789	5,533	1,981	1,210	2,040	2,083	4,408	2,487
Pickaway	3,465	798	2,180	5,119	3,310	1,978	1,978	6,709	6,834	1,984
Pike	1,109	755	573	1,348	688	340	665	1,103	2,854	5,241
Portage	1,502	1,502	6,077	4,570	4,248	2,479	3,161	9,825	3,087	465
Preble	24,430	9,070	4,357	2,798	3,278	4,360	5,230	9,812	13,435	11,740
Putnam	18,878	25,751	25,007	11,715	20,306	13,808	19,629	5,931	3,871	5,387
Richland	21,693	3,483	3,571	6,983	4,734	4,149	3,917	5,840	4,904	2,678
Ross	12,565	7,100	2,583	8,867	3,215	2,376	1,224	5,840	3,038	2,592
Sandusky	7,339	3,622	5,664	8,554	8,605	8,879	5,057	5,717	3,038	2,592
Scioto	2,095	130	143	399	1,837	697	88,454	433	488	488
Seneca	6,766	1,573	2,617	1,355	2,267	2,606	3,192	3,900	1,205	815
Shelby	17,001	6,213	2,350	2,655	4,069	5,833	1,855	2,252	1,335	690
Stark	3,657	1,285	5,927	5,345	3,892	3,597	3,879	3,916	3,313	3,313
Summit	2,170	1,070	2,824	3,583	3,562	2,477	5,691	6,473	2,125	4,504
Trumbull	3,288	4,089	10,162	6,170	6,396	6,085	3,421	6,740	1,844	1,434
Tuscarawas	9,363	3,564	3,278	3,648	3,740	3,900	3,788	2,709	1,523	2,307
Union	25,993	21,652	35,455	29,027	18,158	23,306	14,545	15,644	14,848	9,087
Van Wert	48,616	21,812	28,335	15,276	40,598	29,235	37,622	24,974	9,719	10,396
Vinton	87	87	70	12	12	211	80	480	873	1,303
Warren	16,469	19,934	21,325	13,310	7,267	5,516	7,919	16,753	9,186	3,718
Washington	7,840	1,572	1,191	2,362	972	1,324	836	1,653	1,912	1,480
Wayne	2,208	1,957	922	3,969	3,869	1,988	5,313	6,551	3,554	5,341
Williams	3,972	3,186	2,686	4,005	4,566	10,939	7,525	11,043	4,839	3,157
Wood	6,181	6,221	9,887	4,663	9,887	11,935	15,584	15,141	2,533	5,401
Wyandot	9,416	5,354	6,072	2,626	3,243	1,975	5,560	5,187	1,179	1,848
Total product	1,138,125	741,237	777,689	769,914	613,571	571,858	586,269	813,532	550,924	416,735
Total area	86,066	60,239	59,070	61,340	52,395	42,087	41,367	60,400	42,996	41,180

Average product for 10 years, 697,985 bushels.
 Average area for 10 years, 54,714 acres.

COMPARATIVE TABLE SHOWING PRODUCTION OF OATS IN OHIO FOR TEN YEARS.

Counties.	Number of Bushels.									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams.....	70,744	29,718	44,028	21,738	4,378	25,424	48,438	78,242	81,223	59,534
Allen.....	1,346,571	872,523	887,859	758,051	481,220	622,045	630,632	630,632	605,147	302,810
Ashland.....	844,741	619,992	807,917	765,381	567,639	457,627	633,377	738,244	713,450	565,682
Ashtabula.....	1,023,241	876,870	1,078,131	833,113	697,139	534,740	684,932	876,540	592,084	860,085
Athens.....	550,653	34,632	34,877	98,707	8,000	17,500	36,488	5,480	47,550	92,175
Auglaize.....	1,838,188	856,792	856,792	722,846	580,093	870,276	702,172	783,908	931,681	471,366
Belmont.....	283,432	225,575	225,575	225,395	163,319	171,153	216,463	689,008	331,865	192,775
Brown.....	220,391	88,551	88,551	43,318	13,494	158,120	81,243	185,690	211,317	133,557
Butler.....	102,862	231,193	413,908	361,578	328,936	141,840	211,672	384,545	377,986	208,774
Carroll.....	451,955	353,094	428,774	301,578	328,936	282,161	343,717	380,933	373,588	331,410
Champaign.....	490,272	713,177	846,652	1,044,006	472,559	684,116	708,787	1,183,658	1,383,138	602,733
Clark.....	1,475,276	1,117,224	371,473	427,046	174,668	298,624	343,484	498,913	753,043	302,981
Clermont.....	117,969	50,154	136,828	124,110	26,266	90,702	178,154	307,068	347,474	175,627
Clinton.....	387,315	59,347	89,639	120,153	22,219	70,851	161,479	346,918	377,170	121,359
Columbiana.....	756,840	519,708	695,385	607,922	551,552	450,226	600,678	665,977	503,103	621,583
Coshocton.....	331,304	237,669	296,065	299,592	223,740	314,405	274,720	326,836	412,568	247,754
Crawford.....	1,332,864	933,133	1,078,437	1,005,254	738,767	602,270	868,707	930,760	1,096,031	826,228
Cuyahoga.....	545,418	424,451	501,693	561,539	464,307	349,409	433,796	590,053	540,886	908,013
Darke.....	2,671,889	1,176,457	1,844,193	1,327,664	694,651	1,072,091	1,170,064	1,624,443	1,935,936	650,324
Delancey.....	2,108,744	1,434,836	1,144,273	1,177,653	653,158	692,612	962,944	956,898	1,099,256	637,513
Delaware.....	699,390	228,196	352,409	319,585	187,132	206,276	409,303	438,407	467,325	376,085
Erie.....	972,917	498,758	527,274	413,124	560,423	385,707	534,215	508,520	620,372	489,931
Fairfield.....	413,802	45,601	87,789	84,258	32,135	51,545	105,899	150,403	241,781	157,227
Fayette.....	340,313	51,151	80,787	79,274	26,104	180,756	220,020	448,747	583,540	98,763
Franklin.....	534,028	1,029,544	299,680	280,437	129,674	180,756	149,013	532,719	690,448	421,819
Fulton.....	1,737,411	1,029,544	1,029,544	944,564	702,481	657,886	1,014,936	956,272	1,137,696	858,426
Gallia.....	56,783	34,281	323,043	222,726	10,151	17,887	36,980	68,039	421,081	38,132
Geauga.....	640,169	537,142	650,506	600,241	506,539	378,580	473,719	585,157	513,083	513,083
Greene.....	619,319	122,276	258,811	301,749	50,148	109,236	219,224	401,869	487,888	146,099
Guernsey.....	182,046	113,574	144,716	126,054	85,788	93,883	146,758	177,845	202,027	118,181
Hamilton.....	67,357	46,582	85,779	127,866	15,424	52,929	67,366	130,753	116,309	177,195
Hancock.....	2,008,564	1,074,889	897,483	743,970	578,129	573,625	633,618	639,079	1,027,963	418,634
Hardin.....	1,162,783	719,874	761,138	587,197	362,619	491,676	612,350	727,257	949,606	485,710
Harrison.....	272,843	208,745	219,620	188,745	160,114	161,117	206,179	223,409	264,836	161,366
Henry.....	2,867,208	1,779,820	1,499,604	1,348,915	1,052,717	873,051	1,128,440	996,337	1,455,283	694,990
Highland.....	94,725	37,365	69,474	71,179	13,295	44,466	79,921	190,365	190,146	83,275
Hocking.....	35,434	19,746	29,784	18,833	10,094	20,129	39,355	58,164	64,811	39,939
Holmes.....	560,383	561,820	635,552	603,997	501,768	420,436	514,683	657,480	1,014,122	572,156
Huron.....	1,450,265	1,012,160	1,113,104	1,218,066	1,120,657	654,522	932,684	1,023,233	1,203,369	989,569
Jackson.....	23,333	22,998	22,998	14,918	4,632	14,500	28,080	30,870	28,688	21,715
Jefferson.....	330,551	256,008	306,078	289,440	257,908	285,248	304,451	338,220	350,573	282,340
Knox.....	318,077	173,393	275,908	288,550	329,181	318,955	324,212	323,879	323,874	345,606

Lake.....	536,030	273,394	315,126	349,930	204,820	231,049	266,169	316,190	326,526	290,652
Lawrence.....	37,245	25,494	40,205	25,164	9,130	63,387	41,428	92,001	67,614	39,139
Licking.....	133,734	123,734	246,963	250,046	145,692	250,613	352,637	414,817	492,763	348,527
Logan.....	1,228,260	875,886	928,348	919,607	855,338	698,591	834,455	737,048	1,181,388	402,906
Lorain.....	1,158,244	775,140	831,828	913,416	489,633	459,591	632,498	835,329	816,949	825,596
Lucas.....	1,011,144	700,963	763,601	640,470	497,030	428,943	598,831	689,481	683,669	508,044
Madison.....	526,584	526,584	875,307	768,813	367,111	428,540	823,710	913,717	1,411,308	776,239
Mahoning.....	830,101	608,321	608,321	608,321	410,727	391,834	563,349	563,349	586,369	585,144
Marion.....	1,416,265	868,543	979,015	902,451	589,318	801,884	874,232	809,535	1,267,793	599,228
Medina.....	1,296,507	1,561,733	878,327	764,616	801,965	535,343	754,077	892,527	829,408	890,545
Meigs.....	45,231	43,107	43,107	36,612	12,476	29,367	58,555	80,258	61,905	36,557
Mercer.....	1,273,234	1,287,531	1,304,068	1,170,975	792,200	1,276,912	1,137,703	1,186,082	1,164,130	659,489
Miami.....	765,228	982,742	982,742	1,044,281	380,561	613,006	835,702	1,187,720	1,261,234	602,547
Monroe.....	187,879	167,495	167,495	131,050	14,608	106,908	145,637	184,027	186,766	139,024
Montgomery.....	988,241	202,776	498,166	400,320	141,655	215,855	367,250	727,766	810,016	286,054
Morgan.....	57,876	49,396	52,882	46,539	17,768	33,242	63,916	79,847	93,393	55,393
Morrow.....	700,717	352,451	489,367	404,449	332,752	300,866	537,936	600,254	672,962	300,863
Muskingum.....	140,823	107,955	142,576	133,796	81,427	103,668	179,774	210,685	286,102	148,818
Noble.....	63,110	63,110	48,579	48,579	27,140	34,372	73,331	99,168	108,506	64,919
Ottawa.....	668,889	583,020	555,057	494,174	457,100	521,377	583,246	432,165	453,961	421,270
Paulding.....	2,842,475	2,267,689	2,267,689	2,052,765	1,457,100	1,124,657	1,610,414	1,005,850	1,231,422	770,817
Perry.....	45,893	33,829	33,829	228,623	37,182	32,048	96,286	68,368	96,994	66,394
Pickaway.....	33,601	33,601	38,646	41,903	17,865	68,976	145,018	233,322	320,093	64,473
Pike.....	56,186	33,601	38,646	23,539	9,004	35,414	50,482	93,948	98,207	54,473
Portage.....	946,526	777,755	881,074	755,328	804,770	429,076	638,231	790,382	688,278	793,471
Preble.....	963,699	191,241	317,697	411,718	74,513	172,261	245,392	519,980	670,320	257,269
Putnam.....	2,359,581	1,361,590	1,246,259	1,224,171	620,939	712,352	799,413	798,404	1,029,373	407,647
Richland.....	728,487	897,037	958,474	958,474	745,778	576,229	862,824	921,616	1,144,392	768,134
Ross.....	28,629	30,629	21,922	21,922	12,683	32,213	55,491	98,301	114,947	43,009
Sandusky.....	1,230,928	981,055	943,532	837,738	717,665	878,368	924,205	924,205	1,127,573	766,800
Scioto.....	56,132	38,332	51,117	27,071	9,119	39,235	61,660	90,562	84,334	47,890
Seneca.....	2,211,219	966,951	1,062,436	1,020,565	838,678	694,148	863,725	1,013,072	1,332,190	757,267
Shelby.....	1,711,655	1,334,780	1,360,806	1,208,556	703,450	1,036,200	984,227	1,074,425	1,348,198	734,809
Stark.....	1,036,037	1,038,106	1,212,655	1,121,976	1,016,566	789,260	1,107,919	1,220,528	1,261,165	1,092,962
Summit.....	773,942	645,322	758,949	705,709	585,609	459,006	559,006	781,642	639,708	672,890
Tuscarawas.....	870,709	983,931	809,980	582,027	360,619	375,711	518,587	734,480	537,910	783,715
Union.....	589,376	482,027	515,771	469,239	403,580	384,575	468,915	521,605	640,594	472,234
Van Wert.....	1,280,401	474,072	766,347	602,371	308,035	380,646	591,449	686,740	892,890	413,370
Warren.....	2,345,955	1,766,548	1,638,839	1,543,128	966,516	1,027,966	1,010,954	974,281	1,093,015	581,858
Washington.....	32,383	25,171	22,791	13,020	4,723	1,946	29,441	34,549	37,190	27,902
Wayne.....	390,860	148,729	300,943	304,844	75,392	111,232	225,157	401,353	404,563	204,297
Williams.....	128,048	128,048	187,871	122,409	51,038	92,183	161,534	194,788	170,838	122,943
Wood.....	1,616,480	1,023,869	1,133,974	1,182,999	1,046,605	752,754	1,115,355	1,325,469	1,249,213	1,244,396
Wyandot.....	897,422	2,687,139	1,062,663	963,985	577,651	592,812	851,449	939,548	1,048,271	796,137
Wyandot.....	665,010	665,010	695,493	728,615	447,682	1,510,906	1,932,485	1,679,132	2,289,932	1,318,483
Total product.....	80,146,974	48,713,292	49,834,715	49,061,678	34,363,980	33,906,233	44,179,782	49,731,954	58,312,740	37,305,993
Total area.....	1,895,290	1,458,636	1,427,383	1,584,858	1,281,805	1,429,792	1,344,247	1,449,112	1,467,052	1,213,228

Average area for 10 years, 1,455,237 acres.
Average product for 10 years, 48,555,734 bushels.

AGRICULTURAL REPORT

COMPARATIVE TABLE SHOWING PRODUCTION OF CORN IN OHIO FOR TEN YEARS.

Counties.	Bushels (Shelled).									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams.....	742,597	639,495	740,624	947,943	854,571	972,105	35,319	799,322	833,485	650,528
Allen.....	1,785,790	1,506,201	1,418,980	1,636,162	1,604,028	1,546,806	1,801,900	1,500,787	1,019,187	1,062,426
Ashtabula.....	907,921	829,414	683,906	1,008,202	983,171	1,083,396	1,083,702	898,728	538,908	589,276
Athens.....	514,535	349,778	339,974	432,151	431,487	189,895	376,482	322,716	61,399	389,393
Bath.....	426,634	349,778	422,026	460,485	395,025	330,690	376,482	353,339	386,926	228,453
Belmont.....	2,000,975	1,342,707	1,630,300	2,073,820	2,149,980	1,788,026	2,081,420	1,852,080	1,482,575	1,647,150
Bloomington.....	799,076	610,343	690,514	858,914	659,836	846,846	829,900	786,263	763,644	524,364
Brown.....	1,010,868	1,010,868	804,887	1,180,727	1,010,868	1,099,405	1,155,904	1,010,262	1,173,390	965,403
Butler.....	2,296,983	2,146,137	1,915,075	2,594,356	1,418,488	2,348,512	2,416,230	2,319,632	1,987,922	1,580,633
Carroll.....	535,505	493,151	461,656	538,276	448,154	319,651	520,235	452,385	394,549	389,010
Champaign.....	2,591,075	2,161,509	2,334,141	3,228,279	2,328,250	2,514,735	2,318,982	2,553,673	2,334,679	2,081,850
Clark.....	1,969,123	1,814,192	1,752,232	2,301,058	1,868,306	2,082,526	2,013,080	1,930,147	2,195,070	1,418,948
Clermont.....	1,935,194	1,061,855	853,367	1,106,956	682,133	971,255	1,039,256	930,140	778,335	1,188,543
Columbiana.....	2,690,158	2,600,295	2,633,825	2,809,688	2,242,795	2,718,403	2,736,412	2,723,870	2,375,597	1,443,153
Coshocton.....	590,936	559,820	581,132	661,390	641,895	478,322	759,798	688,569	427,472	1,655,691
Crawford.....	1,467,378	1,500,154	1,314,482	1,269,820	919,950	735,535	959,608	894,949	882,280	578,336
Cuyahoga.....	203,618	249,894	134,294	285,992	1,276,118	845,004	1,522,517	1,282,608	1,105,184	1,277,556
Darke.....	4,090,157	2,959,786	3,655,176	4,385,597	2,987,810	3,621,242	4,029,188	3,762,010	3,441,497	3,553,020
Defiance.....	1,668,826	1,479,599	1,362,004	1,297,540	1,098,047	763,178	1,533,195	1,143,221	1,312,452	1,114,482
Delaware.....	1,706,108	1,417,463	1,221,107	1,631,291	1,325,430	1,082,971	1,566,275	1,169,003	1,141,545	1,397,833
Eric.....	464,786	619,593	558,185	478,254	1,588,950	423,758	693,908	560,106	453,398	489,991
Fairfield.....	2,295,400	2,920,727	2,001,470	2,227,940	1,968,534	1,968,375	2,350,012	2,017,794	2,089,842	2,100,073
Fayette.....	2,242,470	1,913,377	2,359,990	2,093,089	1,921,492	1,675,380	2,415,335	2,268,980	2,174,930	1,439,774
Franklin.....	2,484,016	2,021,515	1,814,315	2,515,527	1,914,792	1,903,178	2,475,590	2,102,845	2,231,990	1,723,804
Fulton.....	1,819,646	1,910,486	1,354,315	2,117,420	1,699,693	1,365,198	1,717,160	1,121,010	1,377,769	1,553,100
Gallia.....	1,817,272	393,999	123,167	531,593	576,517	1,365,974	1,675,766	512,120	446,987	287,001
Geauga.....	248,622	293,745	192,617	303,697	277,259	131,499	348,319	277,600	49,319	287,773
Greene.....	2,632,692	2,319,043	2,815,444	2,819,231	2,436,950	2,588,294	2,486,480	2,549,652	2,391,443	1,723,625
Hamilton.....	614,732	827,823	517,305	651,384	368,275	379,721	682,666	531,619	526,768	358,959
Hancock.....	803,069	803,069	715,066	670,890	391,447	665,168	960,361	597,265	545,113	578,556
Harrison.....	2,637,672	2,342,167	2,021,692	1,896,397	1,894,047	2,027,581	2,372,581	1,932,857	1,607,571	1,897,956
Henry.....	1,684,594	1,597,284	1,041,764	1,782,749	1,296,497	1,329,659	1,744,353	1,479,542	1,162,337	1,186,498
Hughes.....	831,725	480,258	540,431	540,431	2,404,842	2,404,842	327,852	419,232	360,309	279,852
Highland.....	3,335,594	2,048,802	2,679,235	2,404,842	2,566,492	2,014,333	2,816,368	1,886,748	2,069,519	2,233,889
Hocking.....	1,885,925	1,815,784	1,613,784	1,632,160	1,402,436	1,942,600	1,713,722	1,841,945	1,783,296	1,066,210
Holmes.....	848,333	355,126	418,919	932,950	983,129	356,190	436,499	834,701	339,615	309,986
Huron.....	464,685	726,478	352,775	926,950	382,775	751,821	978,687	376,100	733,157	764,882
Jackson.....	1,272,216	1,009,503	1,042,438	1,243,193	1,077,847	708,297	1,266,722	1,000,079	862,582	977,956
Jarvis.....	316,210	260,121	405,982	361,679	321,807	234,089	294,271	296,292	261,851	282,165
Jefferson.....	383,910	383,910	386,793	476,933	399,697	312,679	461,447	411,325	377,123	344,449
Knox.....	1,353,660	1,111,704	989,315	1,591,545	521,770	621,650	81,620	81,536	81,512	968,379

CROP AND OTHER STATISTICS

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Lake.....	217,806	229,060	180,797	340,744	302,549	143,733	249,732	177,910	102,975	167,492
Lawrence.....	261,769	219,205	1,800,493	771,045	313,016	231,445	310,210	390,885	296,069	244,571
Licking.....	1,048,899	1,722,062	1,600,394	2,011,610	1,532,042	1,350,519	1,905,736	1,575,463	1,826,832	1,521,885
Logan.....	2,114,147	1,651,146	1,965,008	2,188,643	1,790,313	1,886,203	2,297,084	1,883,681	1,444,032	1,444,032
Loran.....	677,335	716,891	583,330	761,280	697,474	819,340	927,040	708,698	436,405	607,907
Lucas.....	1,162,237	1,077,682	1,093,353	1,093,353	913,884	839,512	1,012,840	708,698	436,405	855,166
Madison.....	2,957,918	2,927,330	2,677,682	2,991,298	2,546,800	2,485,569	2,991,910	2,680,415	2,626,487	2,197,225
Maioning.....	413,110	447,632	411,405	450,115	448,313	302,500	677,794	1,730,683	1,455,135	2,444,144
Marion.....	2,076,568	2,101,888	1,690,871	2,140,387	1,743,470	1,475,714	1,849,699	1,730,683	1,631,019	1,555,135
Medina.....	777,113	824,125	819,270	771,475	774,475	451,179	890,193	723,606	455,200	1,177,854
Mega.....	385,436	352,371	365,698	453,616	377,841	377,841	370,571	383,991	319,618	258,394
Mercer.....	2,547,360	1,766,322	2,018,895	2,290,835	1,900,871	1,954,909	2,154,040	1,740,085	1,870,085	1,644,644
Miami.....	2,526,075	2,027,867	2,299,845	3,049,238	2,022,971	2,202,837	2,483,490	2,519,873	2,149,820	1,902,533
Monroe.....	553,397	446,741	500,253	630,880	459,196	395,978	578,345	549,574	480,920	590,670
Montgomery.....	1,416,853	1,416,853	1,773,635	2,200,353	1,409,489	1,988,223	1,768,769	2,023,243	1,908,834	1,118,594
Morgan.....	478,470	469,970	469,970	576,960	460,750	444,222	603,548	586,106	496,704	391,757
Morrow.....	1,210,176	1,033,422	864,415	1,047,615	954,120	714,801	1,183,180	776,293	770,324	849,314
Muskingum.....	962,202	962,202	1,024,540	840,694	857,590	806,408	1,158,362	1,017,785	1,072,461	669,356
Noble.....	620,181	620,181	495,390	562,530	475,285	456,811	621,728	562,786	508,599	414,051
Ohio.....	1,070,280	1,145,659	937,236	824,068	775,023	750,717	1,211,237	673,684	733,524	878,627
Paulding.....	2,601,574	2,640,438	2,666,314	2,137,059	2,060,710	1,205,010	2,434,210	1,170,366	2,648,787	2,016,302
Perry.....	614,932	628,563	636,102	759,130	577,439	565,279	606,138	608,918	611,585	539,028
Pickaway.....	8,341,015	3,228,992	3,328,992	3,354,293	2,751,578	2,846,619	3,056,315	2,831,153	2,976,494	2,254,422
Pike.....	933,399	832,890	832,890	868,949	840,862	811,633	848,732	707,458	797,768	521,807
Portage.....	497,045	589,539	416,789	518,247	478,485	281,906	586,452	441,926	115,152	489,381
Preble.....	2,941,615	2,397,950	2,384,568	2,850,020	2,049,663	2,309,948	2,607,133	2,603,172	2,064,821	1,506,045
Putnam.....	2,777,253	2,012,909	2,356,049	2,670,803	2,181,757	2,081,688	3,027,680	2,348,551	1,969,480	2,481,147
Richland.....	2,146,805	1,012,859	954,893	1,263,695	1,033,587	780,285	1,372,344	1,023,263	854,279	945,983
Ross.....	2,827,551	2,431,903	2,619,764	2,816,211	2,049,539	2,549,003	3,075,678	2,234,839	2,398,009	1,732,452
Sandusky.....	1,768,851	1,986,358	1,630,121	1,465,218	1,635,509	1,464,185	1,673,076	1,380,767	1,202,653	1,373,728
Scioto.....	1,760,978	1,614,118	1,737,890	1,798,605	672,872	1,728,386	697,136	590,141	667,968	525,367
Seneca.....	2,373,969	1,910,133	1,890,857	1,499,741	1,744,090	1,695,087	2,224,279	1,837,684	1,673,541	1,557,142
Shelby.....	1,723,486	1,677,630	2,059,958	2,292,967	1,898,509	1,632,913	2,126,887	1,796,469	1,710,312	1,908,075
Stark.....	1,150,486	1,303,127	1,111,521	1,289,427	1,173,628	1,013,913	1,394,005	1,056,597	930,229	1,114,138
Summit.....	472,446	518,130	459,077	570,753	583,679	417,914	803,266	639,273	863,512	566,433
Tuscarawas.....	483,600	526,816	420,559	513,190	417,489	222,970	516,109	389,322	70,335	387,613
Union.....	709,510	691,185	776,182	776,481	684,942	661,512	816,337	661,512	647,721	560,288
Van Wert.....	2,103,760	1,903,085	1,474,403	2,104,941	1,648,184	1,351,446	2,109,584	1,533,050	1,720,799	1,564,359
Washington.....	2,398,606	2,298,100	2,471,023	2,320,618	2,247,270	2,127,426	2,905,200	2,288,658	1,727,400	1,623,894
Wayne.....	1,823,470	1,945,506	1,864,646	2,139,345	285,520	242,364	272,202	241,327	212,017	180,093
Williams.....	1,823,470	1,945,506	1,864,646	2,139,345	285,520	242,364	272,202	241,327	212,017	180,093
Wood.....	1,823,470	1,945,506	1,864,646	2,139,345	285,520	242,364	272,202	241,327	212,017	180,093
Wyandot.....	1,823,470	1,945,506	1,864,646	2,139,345	285,520	242,364	272,202	241,327	212,017	180,093
Total product.....	127,725,069	113,773,460	110,803,783	127,218,227	109,622,908	100,620,205	127,044,784	108,538,592	100,529,653	92,820,349
Total area.....	8,161,288	8,122,005	3,026,710	3,281,595	2,840,594	2,894,113	3,011,241	2,865,190	3,066,766	2,945,473

Average area for 10 years, 3,021,496 acres.
Average product for 10 years, 111,176,703 bushels.

COMPARATIVE TABLE SHOWING PRODUCTION OF MEADOWS IN OHIO FOR TEN YEARS.

Counties.	Tons of Hay.									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams.....	41,118	7,731	11,995	15,098	14,865	16,963	15,901	10,332	12,855	14,144
Allen.....	29,760	26,817	28,309	36,774	31,500	42,860	29,422	30,467	26,122	16,948
Ashtabula.....	64,784	33,006	29,538	37,132	32,761	43,109	36,012	35,761	37,957	32,908
Athens.....	65,868	58,361	74,218	72,761	72,661	70,005	64,633	71,745	71,758	66,712
Auglaize.....	22,345	12,212	19,802	23,333	22,508	25,644	20,962	17,111	21,493	17,092
Belmont.....	21,295	15,735	12,269	19,674	17,090	24,009	17,288	17,111	17,703	11,743
Brown.....	28,231	8,010	26,726	43,522	43,338	37,294	33,518	33,518	44,307	39,909
Buckeye.....	16,088	10,292	14,592	21,007	16,738	17,837	11,540	16,599	16,599	16,709
Butler.....	18,923	12,451	13,022	20,856	21,009	22,143	15,583	14,754	16,559	15,354
Carroll.....	33,936	26,037	27,918	36,049	32,315	35,541	30,084	25,341	33,099	31,885
Champaign.....	20,719	15,500	12,679	16,593	18,485	14,726	20,357	20,243	14,363	11,743
Clark.....	29,899	18,134	22,359	25,015	21,232	18,769	15,822	19,217	24,040	24,548
Clermont.....	22,812	17,859	22,359	29,357	21,232	18,769	15,822	19,217	24,040	24,548
Columbiana.....	18,648	12,157	15,030	28,079	17,062	22,830	17,049	18,742	20,561	19,214
Coshocton.....	45,724	34,499	36,572	46,567	48,250	49,137	37,351	43,338	57,906	48,999
Crawford.....	42,278	28,937	32,835	41,765	37,370	47,177	37,351	30,791	37,322	38,141
Cuyahoga.....	34,111	26,345	36,250	40,198	31,637	47,418	30,550	26,961	37,322	35,552
Darke.....	23,447	24,801	27,602	29,415	26,763	32,486	29,528	29,997	34,051	35,552
Delaware.....	22,345	44,188	16,290	29,830	17,866	31,118	17,144	15,731	20,326	13,009
Defiance.....	52,339	19,606	49,065	54,513	45,519	56,631	48,894	47,967	27,827	33,935
Erie.....	12,067	10,138	7,683	11,483	11,564	15,250	9,836	10,079	47,787	42,161
Fairfield.....	49,746	28,894	40,713	45,330	42,381	58,947	43,500	30,065	15,004	8,807
Fayette.....	12,769	6,793	8,665	8,417	8,664	8,106	8,617	11,496	13,855	38,809
Franklin.....	49,694	20,098	40,240	46,116	44,118	47,462	37,997	41,982	43,862	39,045
Fulton.....	25,127	19,606	15,177	23,521	25,216	27,768	17,307	24,942	37,962	37,387
Gallia.....	15,852	11,036	13,537	15,544	17,816	17,248	12,952	13,037	15,415	11,366
Geauga.....	32,425	31,396	32,925	37,594	36,729	35,455	32,825	32,045	37,678	32,623
Greene.....	13,129	13,129	14,547	15,554	18,757	25,756	16,873	13,261	19,837	15,983
Guernsey.....	34,813	25,847	29,718	41,711	40,647	45,458	34,560	26,951	42,946	41,393
Hamilton.....	15,884	12,632	14,767	16,595	14,769	18,058	11,523	12,385	12,385	11,874
Hancock.....	33,493	28,307	27,210	36,751	30,633	49,456	39,537	30,251	40,158	27,845
Hardin.....	23,680	20,627	23,285	30,717	28,061	32,424	28,638	36,436	26,176	23,147
Harrison.....	33,913	20,932	30,943	37,587	35,272	42,040	38,260	23,068	38,988	31,979
Henry.....	21,669	16,929	24,055	26,346	17,363	29,570	13,448	20,266	26,367	21,264
Hocking.....	13,136	7,802	10,845	13,506	22,563	18,567	14,764	13,069	26,367	16,414
Holmes.....	26,926	29,570	24,164	32,389	15,519	33,538	23,846	13,069	26,807	15,622
Huron.....	34,617	31,762	34,027	42,394	38,569	45,236	31,608	34,528	28,907	27,708
Jackson.....	12,952	15,129	13,583	18,332	15,583	18,725	10,100	11,887	13,702	13,876
Jefferson.....	23,650	16,014	23,333	33,839	32,773	39,166	31,166	26,937	31,953	31,841
Knott.....	43,441	33,643	36,499	43,082	63,627	63,679	45,779	46,718	45,515	45,896

Lake.....	13,024	12,931	16,529	17,890	17,245	15,856	13,664	17,300	15,105	17,390
Lawrence.....	6,491	3,095	5,794	6,525	7,887	6,022	6,451	4,488	4,435	4,533
Licking.....	71,550	44,341	56,045	68,313	64,502	76,648	64,541	54,484	67,790	74,794
Logan.....	18,359	15,146	18,584	26,086	22,235	75,123	19,306	19,039	20,902	18,964
Lorain.....	38,476	39,928	47,237	53,563	49,547	42,858	42,858	47,854	57,623	50,740
Lucas.....	14,706	11,255	13,404	15,611	17,062	15,344	15,337	16,699	17,744	15,721
Madison.....	26,702	15,588	21,663	21,690	18,862	21,456	17,738	13,901	15,774	17,883
Mahoning.....	44,967	35,322	36,174	45,642	46,483	51,847	42,278	44,365	50,582	45,592
Marion.....	33,364	21,738	31,441	37,720	28,907	39,758	23,778	19,745	24,731	30,959
Medina.....	45,935	45,848	42,843	44,559	39,111	49,115	33,042	33,944	40,161	30,959
Mercer.....	12,180	12,197	18,741	22,099	21,600	21,103	18,296	16,235	18,312	15,215
Meigs.....	23,623	19,938	16,174	27,058	19,887	27,674	16,970	18,506	15,411	16,402
Miami.....	23,725	14,882	22,115	19,396	19,535	28,115	11,759	8,487	11,416	9,492
Monroe.....	23,725	14,882	22,115	19,396	19,535	28,115	11,759	8,487	11,416	9,492
Montgomery.....	29,236	13,790	15,671	26,197	22,805	33,009	19,545	17,102	21,729	27,380
Morgan.....	29,236	13,790	15,671	26,197	22,805	33,009	19,545	17,102	21,729	27,380
Morrow.....	41,235	29,694	34,747	30,868	37,792	45,220	41,812	32,884	41,284	36,052
Muskingum.....	45,762	30,907	40,139	39,660	47,789	54,006	46,195	39,909	50,750	44,415
Noble.....	13,871	17,496	27,420	35,187	35,015	39,603	29,909	29,909	36,160	31,671
Ottawa.....	13,871	17,496	27,420	35,187	35,015	39,603	29,909	29,909	36,160	31,671
Perry.....	17,327	18,070	21,689	32,294	20,381	30,153	16,260	18,465	19,664	21,014
Pickaway.....	23,858	10,787	18,200	32,294	30,891	33,276	17,768	23,205	26,291	21,523
Pike.....	7,543	9,680	11,478	25,065	23,714	33,276	25,051	21,355	20,351	26,678
Portage.....	39,065	36,093	30,390	36,996	9,306	8,758	8,165	12,688	14,852	12,987
Preble.....	11,923	7,443	7,391	12,389	34,179	39,526	35,771	33,521	43,434	37,872
Putnam.....	21,275	21,275	19,636	29,353	7,850	13,186	8,858	5,501	8,188	7,403
Richland.....	33,409	29,262	26,356	35,254	26,442	34,506	21,282	25,451	29,999	20,855
Ross.....	18,853	8,952	14,676	16,058	32,644	41,683	30,966	27,252	36,966	33,675
Sandusky.....	17,840	16,662	19,137	23,941	14,809	19,139	13,868	13,480	14,757	12,266
Seneca.....	35,282	6,982	10,772	11,148	21,571	25,241	17,588	25,874	27,116	27,116
Shelby.....	15,249	33,172	28,465	40,497	20,242	13,186	7,981	9,368	12,009	9,190
Stark.....	63,968	46,543	43,667	61,537	31,922	46,231	29,186	26,692	40,812	28,506
Summit.....	27,513	28,405	25,637	31,169	15,104	21,399	10,783	9,063	14,731	9,084
Tuscarawas.....	40,110	33,022	42,301	46,898	68,079	30,924	30,405	40,263	44,724	52,959
Union.....	29,394	29,611	29,611	38,573	37,387	67,870	58,803	26,814	34,109	31,391
Van Wert.....	34,030	29,394	26,114	38,573	37,387	67,870	58,803	26,814	34,109	31,391
Vinton.....	10,421	8,033	9,761	12,299	13,850	40,819	24,567	25,799	37,455	29,386
Warren.....	21,421	15,147	16,600	23,411	21,559	22,381	16,016	16,661	21,216	19,456
Washington.....	32,468	15,870	29,984	40,286	33,943	36,709	17,154	31,463	39,683	29,683
Wayne.....	48,628	38,021	29,195	37,898	34,852	56,054	46,902	42,589	57,629	40,724
Williams.....	31,905	24,911	27,008	44,431	35,527	43,029	28,885	37,944	37,944	37,944
Wood.....	25,591	21,373	22,792	31,322	35,373	37,362	20,501	28,686	34,775	34,181
Wyandot.....	28,239	22,374	28,800	36,505	26,799	42,469	27,990	29,268	30,154	35,450
Total product.....	2,579,413	1,902,646	2,159,163	2,767,659	2,567,364	3,068,777	2,254,398	2,222,021	2,685,592	2,370,842
Total area.....	2,280,813	2,103,890	1,859,021	2,739,212	2,168,404	2,475,129	2,124,791	1,871,290	2,290,354	1,975,387

Average area for 10 years, 2,188,829 acres.
Average product for 10 years, 2,826,765 bushels.

COMPARATIVE TABLE SHOWING PRODUCTION OF CLOVER IN OHIO FOR TEN YEARS.

Counties.	Tons of Hay.									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams	1,627	2,746	5,343	1,827	4,087	1,188	1,618	5,491	3,241	5,350
Allen	4,484	1,955	17,557	9,635	21,233	1,796	4,365	15,400	12,292	22,222
Ashtabula	15,370	16,360	28,790	19,055	24,927	13,012	11,484	18,573	12,102	19,131
Athens	3,556	694	5,013	811	2,701	634	1,480	3,573	1,093	1,747
Aurora	543	543	338	411	2,701	210	377	1,461	1,291	1,930
Auglaize	3,663	5,937	21,662	10,773	20,701	1,750	4,452	20,651	16,756	22,098
Belmont	4,392	3,529	5,310	1,719	3,860	1,585	1,228	6,376	1,368	1,897
Brown	4,697	1,745	2,716	1,319	1,912	717	258	1,753	1,997	1,997
Butler	4,109	17,725	17,226	2,512	16,078	1,770	5,815	17,578	14,389	18,015
Carroll	3,985	2,659	6,296	1,385	4,678	2,306	3,832	6,202	1,208	18,015
Cass	4,165	13,875	22,528	8,182	21,875	282	6,185	23,863	14,246	18,015
Champaign	3,071	10,812	16,210	4,537	14,168	244	3,407	19,804	9,449	9,320
Clark	1,978	1,920	3,946	912	3,143	594	1,285	4,250	3,443	5,161
Clermont	3,395	4,540	6,405	2,260	10,582	775	3,073	12,592	5,770	9,162
Columbiana	8,446	8,440	14,750	4,866	10,744	8,722	4,905	10,317	5,101	3,842
Coshocton	4,003	5,380	18,128	5,340	11,822	5,088	7,649	12,240	8,823	4,269
Crawford	13,197	9,822	26,702	21,037	29,607	8,184	11,197	26,723	14,340	19,273
Cuyahoga	2,158	1,310	4,240	1,512	5,276	1,381	808	2,675	1,088	2,178
Darke	8,904	21,482	38,964	9,482	36,790	1,974	11,572	39,947	31,721	35,011
Defiance	6,909	2,358	20,098	4,820	22,239	9,911	3,688	22,809	4,893	22,627
Delaware	3,310	9,928	17,378	9,576	12,652	1,403	2,406	14,953	8,386	10,700
Erie	3,066	5,167	11,621	6,631	8,432	1,947	3,270	9,178	3,638	7,827
Fairfield	5,081	9,989	16,422	6,406	15,896	2,048	5,610	26,758	12,848	13,776
Fayette	680	4,614	8,414	1,769	5,061	1,331	2,130	11,274	8,037	9,830
Franklin	1,731	6,898	14,664	5,093	10,348	674	2,391	16,368	8,868	9,221
Fulton	3,666	3,761	19,619	12,810	20,815	10,453	9,636	21,885	1,245	23,772
Gallia	891	891	576	227	449	266	428	2,119	1,053	2,339
Geauga	3,899	460	4,895	1,118	3,072	928	1,716	3,330	7,722	1,596
Greene	4,142	9,242	13,305	6,440	15,149	721	3,381	18,079	10,732	13,139
Guernsey	1,458	1,077	5,732	607	1,867	386	545	5,879	497	1,080
Hamilton	2,023	3,241	779	607	1,944	1,153	2,201	5,879	5,610	6,182
Hancock	7,490	4,115	26,164	20,648	32,348	4,136	6,502	25,868	17,881	27,898
Hardin	1,969	2,677	17,464	7,741	11,271	3,348	3,942	20,048	12,259	14,376
Harrison	1,871	1,372	4,336	758	1,861	188	914	2,534	549	1,581
Henry	4,659	3,632	15,094	6,344	24,490	2,905	3,138	15,695	4,945	20,669
HIGHLAND	1,547	5,733	5,014	3,418	5,520	2,805	2,165	9,801	6,795	11,038
Hocking	566	457	2,924	270	1,285	415	750	9,801	2,105	3,204
Holmes	13,482	18,345	19,574	10,881	18,870	8,872	14,827	17,032	8,663	8,303
Huron	13,234	17,082	32,204	25,185	31,022	15,016	17,160	28,152	14,947	19,801
Jackson	425	774	1,081	169	374	169	32	212	104	219

Jefferson.....	3,760	2,821	6,103	802	5,140	1,788	2,624	6,701	2,165	1,158
Knox.....	4,601	7,326	26,788	14,041	6,774	6,704	6,973	6,953	6,916	6,870
Lake.....	1,692	436	1,734	235	1,119	222	376	1,056	945	291
Lawrence.....	510	218	387	253	353	269	168	708	767	758
Licking.....	1,644	9,701	22,897	15,783	6,407	3,529	5,977	20,250	9,837	6,583
Logan.....	5,534	16,388	28,655	10,095	29,825	9,909	7,978	15,474	15,474	23,448
Lorain.....	4,735	18,680	17,929	17,096	17,929	7,794	9,795	25,748	5,858	8,872
Lucas.....	3,168	8,919	7,820	4,593	5,982	3,283	2,729	5,017	946	5,236
Madison.....	2,643	9,543	21,603	3,975	12,207	1,193	4,679	18,922	11,880	12,827
Maioning.....	5,118	3,394	7,815	2,648	7,258	4,161	2,371	7,640	4,114	3,037
Marion.....	1,810	8,227	28,955	9,623	20,179	3,728	2,930	22,995	14,062	15,339
Medina.....	15,816	13,457	19,137	19,714	21,733	13,235	11,942	21,170	11,856	23,684
Meigs.....	1,008	592	3,026	674	603	458	409	1,772	1,035	2,934
Merger.....	6,626	6,853	30,026	9,334	29,502	847	7,857	27,121	23,533	25,956
Miami.....	2,780	10,669	16,098	4,113	11,758	1,450	4,730	24,505	16,296	14,888
Montgomery.....	1,791	599	2,957	486	634	206	604	2,163	487	583
Monroe.....	1,440	7,097	18,460	2,395	9,833	1,352	4,197	17,633	14,984	15,490
Morgan.....	4,129	2,592	6,940	1,448	3,717	7,714	2,745	4,314	2,094	2,709
Morrow.....	9,484	13,223	23,424	14,844	22,570	2,604	2,708	20,440	11,247	15,380
Muskingum.....	4,406	3,153	11,800	1,973	6,428	2,694	2,082	9,878	2,552	3,792
Noble.....	1,821	1,914	3,465	365	2,100	380	1,032	4,190	881	1,103
Ottawa.....	5,344	2,159	7,988	5,550	8,555	3,160	3,716	6,194	4,296	7,798
Perry.....	4,320	3,574	17,358	2,422	17,093	2,070	6,154	17,059	5,548	16,610
Paulding.....	3,923	4,737	12,508	2,493	7,962	3,368	6,135	12,115	3,850	4,981
Pickaway.....	2,180	7,770	14,208	4,351	10,382	1,868	3,657	13,000	9,791	11,674
Pike.....	1,191	1,937	3,366	1,878	2,782	671	1,376	7,073	2,507	3,524
Portage.....	8,313	12,325	12,325	1,876	9,378	4,086	2,315	11,270	3,765	7,326
Proble.....	4,065	21,182	17,665	6,210	20,703	4,368	7,376	17,027	18,940	19,013
Putnam.....	3,071	16,429	17,665	13,164	22,869	3,053	6,302	19,931	9,007	22,786
Richland.....	15,226	20,821	20,821	20,821	27,399	14,639	18,534	27,759	18,172	18,737
Ross.....	3,698	4,909	5,535	3,42	13,954	760	1,483	5,628	6,738	11,009
Sandusky.....	6,241	10,502	14,689	9,872	13,954	3,006	4,894	17,620	4,046	13,251
Seneca.....	1,945	12,338	37,985	698	1,179	606	703	32,533	2,393	1,383
Shelby.....	14,321	8,726	18,954	4,945	36,844	9,222	11,479	32,546	20,739	30,897
Stark.....	3,942	10,840	24,235	6,219	19,397	3,28	3,403	19,530	18,838	20,180
Summit.....	11,034	9,270	13,481	6,234	15,306	9,472	11,947	20,562	8,971	12,604
Tuscarawas.....	8,439	9,270	13,481	6,234	15,306	9,472	11,947	20,562	8,971	12,604
Trumbull.....	2,635	1,338	796	3,331	1,088	643	466	2,768	520	6,367
Tuscarawas.....	6,264	4,333	3,397	3,397	6,107	3,084	5,164	9,741	2,405	2,145
Union.....	3,757	12,167	15,394	15,394	21,380	1,777	7,024	29,994	15,548	19,098
Van Wert.....	5,840	5,108	23,585	5,220	23,307	646	3,414	26,431	8,657	21,072
Vinton.....	325	225	11,989	143	433	73	136	442	347	440
Warren.....	3,353	3,733	11,555	2,300	9,712	3,309	2,371	11,127	7,247	9,771
Washington.....	1,948	1,202	3,260	718	2,293	593	1,199	2,052	852	2,490
Wayne.....	32,093	33,456	46,443	35,051	39,635	21,445	24,725	37,076	19,400	21,882
Williams.....	10,214	4,723	16,422	7,673	21,167	10,241	7,847	24,352	3,659	22,713
Wood.....	10,306	8,425	21,755	9,821	21,822	5,115	5,115	18,593	5,999	18,937
Wyandot.....	9,779	7,771	24,274	14,081	28,096	2,722	5,074	18,459	15,462	18,131
Total product.....	441,560	555,261	1,285,284	565,322	1,132,515	293,524	425,507	1,219,405	666,997	972,580

Average product for 10 years, 775,795 tons.

COMPARATIVE TABLE SHOWING PRODUCTION OF CLOVER SEED IN OHIO FOR TEN YEARS.

Counties.	Bushels of Seed.									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams.....	187	870	295	270	3,735	568	583	1,459	2,259	2,535
Allen.....	2,450	446	2,691	2,910	20,693	996	2,549	3,403	2,175	6,825
Ashtabula.....	1,872	563	3,132	2,215	8,190	1,369	1,764	2,277	2,339	4,646
Ashtabula.....	242	13	281	15	368	1,369	56	131	68	68
Athens.....	4	14			94		9	59	28	62
Auglaize.....	2,462	1,644	6,345	5,153.9	21,107	400	2,748	6,065	6,943	9,397
Belmont.....	985	19	62	48	1,901	38	60	1,384	165	192
Brown.....	159	175	386	92	7,707	251	230	569	837	398
Butler.....	2,093	2,166	3,409	142	11,095	257	2,081	2,311	4,613	5,298
Carroll.....	1,203	367	628	12	2,984	298	1,273	2,619	256	495
Champaign.....	2,275	3,590	6,048	1,746	20,123	123	2,340	4,903	6,682	7,410
Clark.....	1,483	1,556	2,129	285	12,432	8	483	3,722	5,498	3,614
Clermont.....	102	94	27	37	218	83	151	311	451	453
Clinton.....	1,422	2,524	908	330	12,121	222	702	3,648	3,681	5,260
Columbiana.....	477	185	832	192	2,081	586	383	1,616	190	487
Coahuaton.....	1,100	247	1,129	868	9,902	1,107	2,573	4,024	1,495	1,619
Crawford.....	3,382	1,725	4,724	3,533	13,810	3,347	2,693	4,626	3,843	8,300
Cuyahoga.....	25	38	25	2	82	2		47		60
Darke.....	2,810	4,208	7,291	1,099	26,981	413	4,514	6,399	11,834	12,938
Defiance.....	7,142	3,655	4,168	3,343	21,707	3,779	5,865	8,061	4,348	12,594
Delaware.....	487	856	1,206	1,206	12,607	384	474	1,826	1,811	2,772
Erie.....	785	810	1,746	806	4,120	672	130	1,231	479	1,564
Fairfield.....	1,620	2,701	2,361	2,614	21,820	1,069	1,542	9,080	7,204	6,725
Franklin.....	1,253	1,653	1,345	227	6,082	599	1,542	3,489	5,032	5,499
Franklin.....	309	1,290	2,284	717	11,702	121	213	5,133	4,808	3,480
Fulton.....	1,857	2,262	3,680	4,581	13,134	3,639	5,118	6,188	7,744	6,171
Gallia.....	14	50	6	45	12			31	40	165
Geauga.....	39	15	74	30	449			145	5	17
Greene.....	1,047	2,077	2,297	565	14,968	152	991	4,773	7,028	5,791
Guernsey.....	89	189	109	53	34	27	34	4,803	32	8,525
Hamilton.....	542	481	1,184	134	1,445	2,357	2,803	4,201	5,248	4,827
Hancock.....	3,512	1,778	4,283	5,295	20,226	24	172	3,983	4,593	1,712
Hardin.....	1,810	1,059	2,514	3,183	11,781	1,507	1,501	3,983	4,593	5,675
Harrison.....	1,688	91	283	50	1,772	36	158	1,071	71	143
Henry.....	8,053	3,797	8,536	6,963	21,877	3,488	6,929	8,275	3,888	12,006
Highland.....	1,489	4,966	1,327	2,582	11,402	1,777	1,424	1,861	9,240	6,686
Hocking.....	32	370	392	98	9,901	124	198	1,567	580	637
Holmes.....	1,877	1,451	3,447	3,185	9,901	2,504	4,571	5,325	2,827	3,322
Huron.....	1,852	1,852	5,906	4,442	12,113	1,534	1,534	4,347	2,537	5,253
Jackson.....	45	545	2		14	13				15

Jefferson.....	619	177	244	52	3,362	145	558	2,652	359	198
Knox.....	588	148	1,799	1,619	1,329	1,396	1,982	1,939	1,911	2,865
Lake.....	100	24	168	144	144	3	5	104	59	84
Lawrence.....	12			8	5			39	37	9
Licking.....	302	453	1,591	1,289	17,118	653	1,426	5,257	4,088	2,798
Logan.....	2,931	2,931	4,929	2,558	21,673	123	3,436	5,623	5,894	10,338
Lorain.....	169	113	647	470	1,464	282	70	379	89	885
Lucas.....	1,789	2,293	3,600	1,901	5,124	1,224	2,166	2,206	2,506	5,699
Madison.....	1,459	3,541	5,203	1,272	16,826	38	1,345	5,992	7,843	2,507
Mahoning.....	248	90	289	1,290	1,290	288	99	352	78	325
Marion.....	266	266	4,103	2,077	17,178	872	3,678	3,352	4,640	5,447
Meigs.....	1,572	567	1,601	2,049	5,592	1,175	405	1,782	3,949	3,949
Medina.....	12	1	15	2	112	73	1	52	188	70
Mercer.....	4,331	3,050	14,102	6,156	26,844	594	7,482	9,722	9,083	12,820
Miami.....	1,665	1,665	320	2,273	8,273	5	982	2,605	4,853	4,853
Monroe.....	64	64	73	51	598	93	192	935	145	145
Montgomery.....	984	3,484	3,584	289	5,711	442	1,491	3,369	6,234	3,899
Morgan.....	670	256	190	35	1,217	36	93	654	227	214
Morrow.....	1,608	647	2,486	2,936	12,994	971	2,577	2,296	1,970	3,879
Muskingum.....	643	215	240	30	2,414	85	244	1,799	154	448
Noble.....	547	176	14	14	918	172	204	712	55	128
Ottawa.....	789	1,598	1,050	1,166	3,183	429	1,785	889	748	1,265
Paulding.....	3,949	3,439	6,117	1,827	17,618	1,109	4,780	2,668	2,226	6,851
Perry.....	2,993	1,928	1,804	1,888	10,203	1,092	2,040	5,045	2,026	1,693
Pickaway.....	1,212	2,198	3,492	1,070	13,618	1,220	1,670	5,544	5,890	8,228
Pike.....	753	808	1,189	545	2,968	431	687	527	2,433	1,380
Portage.....	753	268	1,287	64	2,088	409	477	840	1,144	1,188
Pottawam.....	1,458	4,239	5,287	547	11,088	637	2,143	3,041	5,891	7,579
Putnam.....	4,014	3,459	7,039	6,575	24,630	1,697	7,003	9,110	9,844	9,844
Richland.....	3,234	1,682	5,421	4,837	14,441	2,793	2,903	3,352	2,896	6,881
Ross.....	2,577	1,806	1,689	2,866	10,363	667	1,789	3,320	6,848	6,860
Sandusky.....	2,164	3,626	3,171	2,029	9,212	721	1,554	4,658	1,611	2,365
Scioto.....	13	69	104	6	312	95	20	70	232	410
Seneca.....	7,809	5,839	10,943	8,165	26,240	2,791	4,209	11,167	8,444	10,118
Shelby.....	2,432	2,050	5,587	2,919	14,000	126	2,092	5,338	10,635	10,948
Stark.....	9,569	371	1,902	205	5,725	1,099	1,850	1,845	1,017	2,438
Summit.....	434	274	1,608	102	2,242	448	414	765	240	1,223
Trumbull.....	462	12	301	22	263	17	13	232	17	122
Tuscarawas.....	2,246	274	1,248	784	4,921	1,118	2,128	3,457	805	726
Union.....	1,026	905	2,243	1,606	17,776	483	1,172	2,745	3,442	4,154
Van Wert.....	2,520	2,383	10,263	2,973	18,618	437	2,923	4,259	2,701	6,371
Vinton.....	17	30	6		63	3	76	37	79	86
Warren.....	727	379	711	117	2,106	29	190	1,160	1,706	2,064
Washington.....	444	128	209	46	998	76	228	454	118	243
Wayne.....	4,881	1,865	5,460	2,986	10,815	3,713	2,690	3,141	2,776	4,948
Williams.....	6,226	2,833	5,025	6,193	18,668	4,987	6,483	9,075	2,489	13,813
Wood.....	11,168	11,168	12,534	6,139	22,357	1,264	5,229	6,116	2,172	6,149
Wyandot.....	2,850	1,521	5,887	5,063	19,343	1,828	2,434	4,928	5,070	8,154
Total product.....	155,269	127,688	234,418	141,349	806,974	71,911	145,735	266,240	241,514	335,272

Average product for 10 years, 252.537 bushels.

COMPARATIVE TABLE SHOWING PRODUCTION OF IRISH POTATOES IN OHIO FOR TEN YEARS.

Counties.	Number of Bushels.									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams.....	14,157	7,491	35,461	31,071	15,156	20,008	21,568	16,301	28,591	18,814
Allen.....	90,198	50,403	74,726	51,748	60,023	42,704	66,441	55,789	63,492	43,545
Ashland.....	82,121	68,315	94,424	107,570	90,934	82,337	141,591	94,595	83,163	91,416
Ashabula.....	379,196	342,694	362,552	400,521	291,809	219,091	435,815	306,568	340,247	207,207
Athens.....	38,029	22,426	49,142	55,409	34,969	46,375	48,316	43,975	46,527	19,399
Auglaize.....	109,618	67,539	75,860	70,448	101,438	67,095	67,988	72,816	67,492	71,778
Belmont.....	48,720	31,626	80,294	107,344	86,739	91,587	111,574	123,529	131,524	97,509
Brown.....	15,019	12,688	18,675	40,717	16,577	28,694	35,190	33,989	34,910	79,509
Butler.....	73,361	58,947	86,598	115,851	52,921	110,091	86,753	81,187	98,665	72,445
Carroll.....	71,044	56,680	71,108	106,324	66,039	67,755	86,753	134,939	98,665	19,874
Champaign.....	36,446	32,582	50,569	51,904	32,861	30,732	43,645	37,805	46,953	72,445
Clark.....	79,884	62,691	98,119	117,294	87,750	86,763	82,191	76,352	64,487	23,795
Clermont.....	51,641	46,317	63,101	98,793	32,022	71,446	76,440	76,138	65,475	54,149
Columbiana.....	7,069	7,389	10,227	16,134	14,009	26,326	33,596	24,949	20,726	18,482
Coshocton.....	248,976	258,952	306,269	339,379	260,053	271,205	281,376	221,401	233,859	201,655
Crawford.....	87,990	67,550	101,744	121,062	107,833	157,223	143,738	116,030	93,361	80,089
Cuyahoga.....	165,436	136,925	135,491	119,449	133,037	123,366	172,067	130,104	143,150	138,725
Darke.....	512,290	578,816	575,715	750,157	484,090	474,309	675,134	601,099	605,801	641,831
Darke.....	105,972	86,537	119,611	137,371	68,779	74,311	74,437	98,359	143,318	85,186
Defiance.....	96,815	50,733	80,728	62,981	62,981	58,824	81,315	73,380	112,841	79,895
Delaware.....	32,080	32,080	45,339	50,123	50,123	48,465	64,521	55,009	45,978	34,150
Erie.....	346,712	322,704	470,810	368,080	315,155	333,323	403,075	315,409	355,010	275,980
Fairfield.....	68,859	37,001	90,264	88,118	63,173	89,582	92,933	91,575	110,019	98,258
Payette.....	822	706	955	955	799	580	535	1,410	13,143	2,832
Franklin.....	129,268	113,799	156,422	223,178	128,538	131,783	208,759	249,705	271,212	145,887
Fulton.....	107,641	56,372	117,267	124,216	88,552	97,499	108,998	159,291	159,291	102,158
Gallia.....	9,595	5,763	26,545	32,713	24,030	27,189	27,635	23,153	26,372	15,399
Geauga.....	278,012	269,778	268,017	352,678	247,332	219,631	374,898	254,350	231,978	187,475
Greene.....	60,340	60,340	88,124	105,581	56,302	70,561	86,510	83,716	73,965	30,412
Guernsey.....	23,375	13,202	43,768	54,673	43,386	40,369	62,078	69,819	56,967	48,537
Hamilton.....	315,510	303,705	443,598	498,269	219,444	453,332	483,997	409,830	384,096	367,080
Hancock.....	104,822	68,984	83,032	59,741	81,623	80,198	80,997	57,800	61,284	90,060
Hardin.....	93,368	93,368	88,367	68,464	77,416	106,026	104,832	86,464	80,707	144,427
Harrison.....	15,194	11,589	19,240	22,012	4,165	15,954	20,181	22,432	31,105	19,206
Highland.....	81,792	31,672	72,630	78,100	69,674	70,671	73,737	65,195	103,663	70,510
Hocking.....	27,611	32,589	49,710	41,633	3,400	9,675	14,824	17,046	29,984	12,686
Holmes.....	60,496	77,959	88,512	118,209	48,541	48,958	59,851	57,757	51,362	46,804
Huron.....	158,163	158,163	190,966	183,760	117,919	119,945	72,149	66,006	72,586	66,979
Jackson.....	193,116	8,811	30,768	130,768	16,737	19,945	143,076	122,472	126,786	138,374
Jefferson.....	40,160	36,254	61,944	86,608	83,250	20,667	14,120	14,350	21,085	19,378
Knox.....	80,412	80,412	73,322	136,514	23,553	22,980	96,931	91,060	78,811	54,938
Knox.....							43,378	43,326	43,111	44,372

Lake.....	187,702	156,444	180,790	209,306	129,953	147,055	186,942	164,945	181,996	151,291
Lawrence.....	27,711	10,995	51,406	67,963	42,678	42,868	38,520	41,238	38,705	27,739
Licking.....	122,042	66,774	118,885	127,054	136,584	140,572	175,259	128,473	152,471	100,559
Logan.....	38,301	40,290	47,006	55,025	41,682	41,289	61,314	38,525	47,748	32,931
Loran.....	311,362	318,008	339,583	347,940	247,702	175,288	319,405	264,288	222,569	214,945
Lucas.....	411,856	279,069	383,561	390,340	299,541	358,335	324,558	238,499	450,230	271,991
Madison.....	12,252	28,475	11,004	32,598	8,260	15,236	25,510	23,918	28,788	27,162
Maioning.....	273,592	233,404	285,632	314,373	293,892	269,397	301,545	234,002	247,878	323,131
Marion.....	69,561	51,640	71,856	76,192	64,644	56,542	87,981	74,102	76,583	59,761
Medina.....	281,325	351,943	441,658	465,331	352,910	515,920	435,048	305,470	309,590	299,437
Meigs.....	37,515	46,587	42,739	46,547	63,104	68,887	68,465	54,519	65,293	44,730
Mercer.....	45,786	37,515	46,587	42,739	63,104	68,887	68,465	54,519	65,293	44,730
Miami.....	116,013	116,677	145,093	148,617	73,505	85,349	94,104	109,613	120,976	82,190
Monroe.....	87,573	37,573	141,180	141,180	99,573	105,662	128,690	131,681	150,900	62,816
Montgomery.....	32,040	73,886	73,886	92,052	46,935	65,262	88,180	130,011	114,966	114,966
Morgan.....	17,234	11,094	107,524	56,125	25,196	38,371	46,498	55,555	126,412	59,761
Morrow.....	96,929	107,524	126,317	123,931	106,169	106,169	126,317	68,905	51,492	37,839
Muskingum.....	65,763	46,006	82,044	88,043	73,682	97,079	124,177	68,905	96,175	85,524
Noble.....	58,239	18,982	62,945	62,148	48,440	61,538	68,787	69,167	116,846	92,066
Ottawa.....	23,719	13,543	25,944	50,087	41,688	43,890	49,186	37,585	72,237	59,902
Paulding.....	30,272	30,272	50,177	63,949	27,605	32,577	23,830	22,028	68,948	118,935
Perry.....	46,572	10,067	52,708	58,002	43,140	44,685	84,020	58,472	55,952	42,460
Pickaway.....	17,761	26,849	52,708	937,122	737,258	667,184	74,931	38,246	57,935	41,141
Pike.....	493,912	677,028	747,278	937,122	737,258	667,184	74,931	38,246	57,935	33,629
Portage.....	25,508	16,196	84,713	40,892	115,419	17,439	26,845	623,024	765,851	35,168
Preble.....	83,847	50,385	84,713	40,892	115,419	17,439	26,845	623,024	765,851	41,141
Putnam.....	287,638	214,253	290,688	243,008	232,832	199,096	214,969	163,145	186,016	690,889
Richland.....	51,788	45,576	75,993	293,349	232,832	199,096	214,969	163,145	186,016	88,075
Ross.....	303,377	223,079	290,976	278,555	237,653	254,855	250,988	218,237	87,431	59,262
Sandusky.....	107,720	77,814	131,305	151,510	132,084	108,627	125,605	101,253	119,130	213,943
Seneca.....	230,414	167,202	245,717	186,577	140,063	189,339	209,684	178,487	196,754	150,480
Shelby.....	65,911	55,712	69,317	82,318	66,299	48,884	47,314	41,812	65,982	44,376
Stark.....	344,543	373,186	473,567	578,140	498,140	448,809	586,243	336,903	407,912	361,289
Summit.....	289,308	372,694	536,504	536,770	412,006	335,679	566,923	354,881	336,880	309,805
Trembly.....	332,886	246,231	384,606	370,544	306,441	211,617	387,126	287,562	328,023	287,537
Trumbull.....	145,755	124,745	162,802	201,287	161,748	179,842	216,746	245,152	175,772	145,104
Tuscarawas.....	145,755	124,745	162,802	201,287	161,748	179,842	216,746	245,152	175,772	145,104
Union.....	61,446	53,395	71,566	29,953	13,475	9,656	25,393	21,491	29,040	14,576
Van Wert.....	69,917	53,395	83,610	59,375	70,669	55,315	63,603	61,528	55,778	41,852
Vinton.....	17,010	13,678	29,881	37,188	29,111	26,471	24,765	18,934	18,885	22,139
Warren.....	131,438	106,631	129,808	35,200	12,065	19,485	15,537	32,863	32,547	24,487
Washington.....	86,047	186,730	196,619	196,619	156,348	192,241	191,621	192,116	202,615	143,250
Wayne.....	383,125	405,249	515,073	597,356	574,285	883,520	496,229	537,709	500,178	439,791
Williams.....	104,190	66,850	66,850	52,801	46,510	51,879	76,502	75,025	102,841	135,547
Wood.....	110,844	119,493	111,748	86,610	102,120	98,587	94,342	79,014	119,026	119,026
Wyandot.....	50,065	44,746	57,714	45,451	47,960	39,729	51,915	54,963	63,472	57,980
Total product.....	10,579,701	9,406,212	12,313,622	14,511,973	10,556,238	10,825,659	13,615,184	10,957,796	11,998,075	9,997,543
Total area.....	104,812	146,144	144,916	151,611	134,667	125,737	126,683	131,338	124,826	109,811

Average area for 10 years, 130,055 acres.
Average product for 10 years, 18,476.394 bushels.

COMPARATIVE TABLE SHOWING PRODUCTION OF TOBACCO IN OHIO FOR TEN YEARS.

Counties.	Pounds of Tobacco.									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams.....	3,373,710	2,862,240	5,249,724	6,318,401	2,317,759	3,074,552	3,173,664	2,822,122	2,604,590	1,681,840
Allen.....				14		79				
Ash and.....		1,870		800			204			
Ashabula.....			1,900		1,075		9,050	3,000		3,800
Auglaize.....		5,051	15,560	5,500	4,300	7,100			875,215	823,282
Baldwin.....	1,264,435	933,011	1,194,008	1,057,466	709,948	634,098	1,020,054	1,243,409		3,900
Belmont.....	4,407,794	4,204,168	4,840,185	6,028,544	484,865	4,898,925	4,533,217	3,920,895	4,618,448	4,237,960
Brown.....					678,940	1,186,860	1,948,480	1,227,750	1,058,770	735,100
Butler.....	583,000	779,064	981,371	1,162,027	11					
Carroll.....			68,050	58,700	69,000	87,490	61,100	36,922	35,290	33,400
Champaign.....	121,760	54,700	123,260	190,455	180,000	193,680	187,476	121,622	199,000	113,460
Clark.....	58,091	125,582	2,810,745	3,456,237	232,320	2,030,640	2,177,557	1,950,645	1,998,301	1,987,966
Clermont.....	1,874,609	1,980,456	13,400	12,270	6,660	17,000	7,000	10,400	9,900	17,700
Clinton.....		46			2,120					
Columbiana.....										1,000
Coshocton.....			200				100			
Crawford.....			50							
Cuyahoga.....			36	132				1,000		
Darke.....	14,999,403	16,230,424	15,424,356	14,987,415	12,463,334	13,669,460	15,370,410	11,809,067	9,301,531	8,712,814
Deane.....			2,400							1,600
Delaware.....										
Erie.....	620	500	600	90						
Fairfield.....										
Fayette.....		729								
Franklin.....										
Fulton.....					3,000					30,000
Gallia.....	988,766	1,539,692	2,280,161	2,327,222	837,305	570,930	400,208	662,790	366,520	360,160
Geauga.....								51	700	
Greene.....	160,400	199,950	223,580	322,690	261,705	627,908	539,825	454,235	343,495	176,048
Guernsey.....	89,870	162,640	448,595	352,135	100,870	109,400	219,965	267,567	138,795	163,959
Hamilton.....	265,958	398,260	490,899	909,155	20,144	186,945	217,070	231,600	132,337	119,000
Hancock.....										
Hardin.....	700									
Harrison.....		3,500	3							
Henry.....										
Highland.....	34,340	62,115	164,840	175,420	21,845	1,645	19,885	6,000	4,000	10,000
Hocking.....						20,506				
Holmes.....				50						
Huron.....						73				
Jackson.....		11,675	13,690	6,500						
Jefferson.....										
Knox.....										

CROP AND OTHER STATISTICS

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Lake	5,900	17,600	5,700	4,500	800	2,730	2,500	2,000	4,000	3,000
Lawrence	304,623	307,580	949,970	751,765	159,488	64,780	65,140	89,943	48,368	63,700
Licking										
Logan	10,000	89	51,970	32,590	24,300	1,000	3,600			50
Lorain										
Lucas	2,223	200		2,000	1,000	26,859		173	32	
Madison					1,400			25,912		
Mahoning										97
Marion			900			107			2,500	
Medina	117,633	106,200	67,070	111,376	155,135	126,867	259,320	168,437	145,620	165,500
Meigs	42,980	42,980	82,510	26,760		800		800		800
Mercer	11,220	22,130	20,100	12,400	19,400	35,100	36,400	15,900	6,164	6,200
Miami	21,300	6,051,235	5,767,981	6,521,943	5,221,470	5,166,410	7,344,086	5,347,080	3,894,770	3,211,654
Monroe	5,855,105	1,493,045	2,190,985	1,911,415	444,019	604,885	951,790	1,142,995	761,335	745,955
Montgomery	593,380	13,910,175	11,069,415	12,265,448	9,692,050	12,791,504	17,964,084	12,608,330	12,405,980	8,419,270
Morgan	10,619,832		1,900	10,250		2,500	600	1,000		
Morrow						400				
Muskingum	4,000	12,800		1,900		925,102	1,349,040	1,774,882	1,400	1,100
Noble	926,910	1,712,300	3,014,184	2,409,515	938,670	925,102			1,232,938	783,508
Oakawa										
Paulding			11,300	9,410	8,600	9,250	920	550	3,000	1,000
Perry										
Pickaway				950	9,000	36,840	20,255	34,268	7,800	19,100
Pike	73,100	80,180	483,288	260,015	51,445					
Portage			5,460,900	6,114,650	4,950,137	5,916,500	8,310,407	5,740,562	5,095,539	3,203,455
Preble	5,481,260	6,866,610		87						1,000
Putnam										
Richard										
Ross	1,200	8,900	22,065	5,000	4,000	1,000	9,800	15,860	20,425	4,200
Sandusky										
Seneca	480,939	380,079	1,061,913	973,514	387,290	255,210	313,410	271,619	257,400	213,075
Shelby	254,500	133,650	169,161	178,125	154,266	160,310	108,100	76,770	32,990	43,355
Stark									500	5,150
Summit	48									
Trumbull										
Tuscarawas				146	93					
Union	50	50			4,000		2,000		27	
Van Wert					5,500					
Vinton	1,590		1,700	25					30	
Warren	2,644,800	2,649,640	2,225,208	2,627,140	1,422,435	3,048,525	4,129,975	2,967,346	4,100,536	2,014,207
Washington	18,740	12,486	35,386	22,925	1,200	900	1,066	150	4,800	6,070
Wayne	147,800	134,090	86,300	167,055	250,000	247,190	337,950	178,825	229,980	313,425
Williams		719,517								
Wood										
Wyandot								69		
Total product	55,828,741	64,678,656	67,107,409	72,273,052	42,830,236	56,744,998	70,706,878	55,332,685	49,944,056	39,343,870
Total area	59,896	64,776	84,553	91,701	60,987	75,358	70,060	65,625	58,451	50,878

Average area for 10 years, 68,227 acres.
 Average product for 10 years, 67,479,056 pounds.

COMPARATIVE TABLE SHOWING PRODUCTION OF BUCKWHEAT IN OHIO FOR TEN YEARS.

Counties.	Number of Bushels.									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams.....	300	5		10	3	3	32	90	60	10
Allen.....	1,686	447	20	200		30	261	241	396	136
Ashland.....	91,523	70,589	54,290	138		184	93,080	86,378	92,476	52,841
Ashabula.....	335	346	390	127,422	72,046	75,868	484	1,080	777	235
Athens.....	830	83	185	3,862	786	736	180	121	204	245
Auglaize.....	586	734		701	580	706	535	1,014	740	160
Belmont.....	15	4		20	38		23	276	720	142
Brown.....				90			100	333	8	60
Butler.....	1,677	541	688	914	606	762	405	466	489	65
Carroll.....		10	25	89	121	180	116	209	139	19
Champaign.....				200	60	16	72	72	60	52
Clark.....	50	25				50	35	35	69	69
Clermont.....		29		18			30	89	25	2
Columbiana.....	1,288	610	517	1,004	899	1,310	713	1,642	3,250	570
Coshocton.....	1,624	670	64	906	329	347	172	1,463	1,636	507
Crawford.....	40	526	20	273	25	283	116	61	110	230
Cuyahoga.....	107	172		335	55	83	43	97	143	158
Darke.....	22			248	14	50	49	74	167	46
Defiance.....	1,690	64		184	260	492	508	207	1,146	1,201
Delaware.....	269		361	228	378	180	154	176	180	340
Erie.....	7,083	4,502	6,262	10,433	5,051	4,156	3,107	3,642	4,926	3,008
Fairfield.....	122	130	46	340	10	285			200	
Fayette.....	50	29		60	235	62	72	35	886	20
Franklin.....	5,143	2,961	3,817	4,653	3,971	2,355	1,743	2,490	3,458	1,233
Fulton.....	16			82	32	266	50	32	45	16
Galla.....	19,678	13,274	14,416	42,742	19,397	18,697	20,489	14,937	12,078	6,277
Geauga.....	63	130		10	60	1	230	180	75	1,110
Greene.....	898	580	338	2,072	355	470	393	2,062	824	341
Guernsey.....	86	24		542		60	230	70	5,568	10
Hamilton.....	30	198	15	753	1		370	35	66	27
Hancock.....	62	13	30	262	620	503	352	158	434	247
Hardin.....	205	175	108	483	166		45	415	405	18
Harrison.....	3,450	1,415	440	1,077	1,117	3,356	226	253	623	600
Henry.....										
Highland.....										
Hocking.....	4,310	3,252	2,822	3,535	1,235	1,149	821	1,604	1,580	1,034
Holmes.....	319		16	95	102	234	184	245	434	284
Huron.....	2,486	1,183	1,195	2,171	1,366	2,579	667	849	603	295
Jackson.....	12,802	12,005	9,981	12,760	1,386	2,830	1,620	2,943	1,445	1,133
Jefferson.....	1,677	830	863	626	591	497	542	433	114	143
Knox.....	179	65	21	278	65					95

Lake.	3,614	5,130	5,371	17,457	5,457	10,889	11,813	9,358	8,340	4,781
Lawrence			20	23		18	530	75		
Licking	961	503	73	1,663	514	328	754	1,359	1,689	600
Logan	116	75	128	612	624	153	229	210	761	87
Lorain	30			139	65	285	10	172	255	311
Lucas	5,952	4,512	5,119	6,480	7,030	3,332	4,860	5,654	10,955	4,717
Madison	134	84			30	284		54		
Maioning	4,276	747	1,992	6,651	4,841	3,125	3,614	2,596	4,016	1,316
Marion				80				112	75	89
Medina	2,370	917	96	2,330	290	1,121	530	181	12	402
Meigs	25	197	160	220	210	117	241	305	151	261
Mercer	50	33		238		54	149	29	6	93
Miami				8		14		83	28	
Monroe	8,313	9,207	5,494	10,961	3,348	5,686	2,408	5,487	2,800	1,652
Montgomery		10					20		198	
Morgan	698	330	211	803	321	348	455	768	621	190
Morrow	228	104	25	31	30	275	30		15	
Muskingum	126	280	63	41	52	80	175	63	195	31
Noble	85	139	33	496	298	77	156	166	189	20
Ottawa	116	50	20	65	150	695		84	190	55
Paulding	999	93	103	135	177	537	432	436	850	952
Perry	1,262	1,418	563	1,458	1,142	1,793	7,045	2,529	1,844	1,070
Pickaway							16	50	355	44
Pike	6,224	2,953	5,517	7,335	3,294	4,165	3,583	3,247	2,147	1,132
Portage	13,347	7,459	6,961	17,038	11,326	9,594	8,327	5,909	7,349	3,599
Preble				15		25		15	10	40
Putnam	289	55		23	812	70	235	214	82	247
Richland	1,235	75		319	245	282	88	42	318	226
Rosa	1,993	1,456	571	399	443	1,915	1,363	2,353	1,810	783
Sandusky	784	526	500	1,125	133	640	1,723	2,455	480	80
Scioto	9,353	12,244	13,420	19,048	8,166	10,864	10,231	6,590	8,110	1,512
Seneca		50		60	36	35	100	205	264	136
Shelby	168		15	152	597	209	65	30		
Shark	1,725	415	226	693	288	191	538	389	833	313
Summit	1,855	1,327	846	3,225	1,239	1,102	2,043	1,628	1,121	1,141
Tumbull	40,069	18,522	20,433	53,266	37,153	26,023	17,477	13,877	20,080	9,586
Tuscarawas	400	70	206	485	232	270	300	999	1,129	589
Union	50	10	40	202	1,050	60	11	123	135	391
Van Wert	48			29	1,120	162	90	192	166	46
Vinton	7,839	3,829	3,313	3,358	1,574	1,947	1,500	1,991	1,504	945
Warren	49		120	399	15	30		4	86	189
Washington	4,392	3,936	1,678	4,072	1,313	1,388	1,244	2,889	2,060	885
Wayne	707	180	575	720	302	708	720	336	722	257
Williams	268		58	338	109	198	249	237	1,085	379
Wood	2,516	586	800	1,469	1,245	382	473	408	1,365	760
Wyandot	331		3	307	59	616	96	39	66	89
Total product	263,476	193,348	120,589	384,152	208,918	209,094	212,268	198,529	224,475	109,651
Total area	14,814	10,960	14,467	21,051	13,752	12,670	12,002	11,908	13,388	7,835

Average area for 10 years, 13,280 acres.
Average product for 10 years, 214,452 bushels.

COMPARATIVE TABLE SHOWING PRODUCTION OF FLAXSEED IN OHIO FOR TEN YEARS.

Counties.	Number of Bushels.									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams.....	8						32			
Allen.....	5,523	4,951	1,705	2,787	3,707	3,215	9,180	4,011	2,927	9,314
Ashland.....								7		
Ashtabula.....										
Athens.....							3			
Auglaize.....	10									
Belmont.....										15
Brown.....		61	20			2	20			6
Butler.....			8		4				50	
Carroll.....	70									
Champaign.....										
Clark.....										
Clermont.....	47	53			1					
Clinton.....				8						12
Columbiana.....				10						6
Coshocton.....			7						12	100
Crawford.....										
Cuyahoga.....									78	
Darke.....				12		22	25			
Defiance.....										
Delaware.....										8
Erie.....										
Fairfield.....										
Fayette.....										12
Franklin.....								45	38	15
Fulton.....		88		18						
Gallia.....										
Geauga.....	54				100	3	80			
Greene.....										
Guernsey.....	10	27	16	8						
Hamilton.....				5						
Hancock.....	277				20		12	100	24	
Hardin.....	195	91	36	106					432	
Harrison.....	73		25							
Henry.....	269	120			8	3	6	44		10
Highland.....						15	20			96
Hooking.....										
Holmes.....						62				35
Huron.....		3,189	587	1,099	1,024	647	3,105	3,156	6,723	3,486
Jackson.....	6,560									

[illegible]

Average product for 10 years, 13,825 bushels.

COMPARATIVE TABLE SHOWING PRODUCTION OF FLAX IN OHIO FOR TEN YEARS.

Counties.	Pounds of Fiber.									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Ashland	265,200	199,500		190,400	187,600	280,800	346,600	382,120	142,700	851,487
Ashtabula			128,600							
Auglaize									6	
Brown										
Champaign										
Crawford										
Darke										
Fayette										
Fulton									751	
Geauga						37				
Hamilton		5		500	100			7	2,000	
Hardin										
Harrison			2							
Henry										
Highland										
Huron	235,900	238,220	48,000	161,000	81,300	46,500	147,200	361,900	161,800	238,500
Knox	1									
Lake									12,000	92,500
Licking							8			
Logan	6,020		21							
Lorain	112,000	59,000					16,000	31,000	3	60
Lucas										
Mahoning										
Medina	16,870	6,026				6		6,000	12,000	2,003
Meigs			25							
Miami										15
Monroe										
Montgomery										
Paulding			7,347							
Pike								40		
Portage	1,800									
Preble										
Putnam						80			10,000	36,000
Richland										
Seneca	19,800	270,000					16,000	15,000		
Shelby										

COMPARATIVE TABLE SHOWING PRODUCTION OF BROOM CORN IN OHIO FOR TEN YEARS.

Counties.	Pounds of Broom Brush.									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams.....	9,000	250	9,660	1,800		2,500	1,635			600
Allen.....										
Ashland.....							400			
Ashtabula.....						15			12	
Athens.....			70							
Auglaize.....	260	210	36,200	310	200	300	500	300	1,080	3,000
Belmont.....	290	287	3,837	225					1,000	
Brown.....	700	3,900	1,525	2,000	2,300		2,300			1,008
Butler.....	6,000	2,700	150,850	7,700		800	4,000	9,500	6,302	6,000
Carroll.....										
Champaign.....			2,450		20,840		4,000			6,000
Clark.....	1,360	150	1,500							
Clermont.....	500	3,350	4,250		1,500	1,000				
Clinton.....			1,500				20			
Columbiana.....			4							
Costa.....			40							
Crawford.....		300								
Cuyahoga.....	1		175							
Darke.....	5,800	15,700	16,438	5,400	1,675	3,000	3,700	7,500	10,450	6,000
Defiance.....	4,000			4,200		1,200	2,100	1,500	750	
Delaware.....	800	2,600								
Erie.....	10,700	12,600	7,300	1,800				2,500		
Fairfield.....	280	1,200	4,665	700						
Fayette.....									10	
Franklin.....	1,500	820		1,930				2,000	12	1,600
Fulton.....		4	4	12					4,000	
Galla.....			20,050	445			1,560		100	3,200
Geauga.....									50	
Greene.....	40	500	4,700				800		400	400
Guernsey.....	500		500	500						3,500
Hamilton.....		3,867	4,050			5,000				
Hancock.....			9,000		4,000					
Hardin.....		6								
Harrison.....				1,200						
Henry.....		3,500	2,500					700		
Highland.....			800						10,500	
Hocking.....										75
Holmes.....		188								
Huron.....	1,500	500	600				500	1,000	3,050	3,250
Jackson.....	200	200								
Jefferson.....		900	500					600		
Knott.....		400	300	500						

[illegible]

Average area for 10 years, 295 acres.
Average product for 10 years, 117,730 pounds.

COMPARATIVE TABLE SHOWING USE OF COMMERCIAL FERTILIZERS FOR TEN YEARS.

Counties.	Pounds Used.									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams.....	3,962,630	4,663,140	5,091,263	4,496,965	4,788,590	3,955,550	4,037,723	3,972,450	3,508,900	3,311,023
Allen.....	992,075	1,376,825	1,112,255	698,455	512,700	441,900	582,600	460,500	289,100	415,800
Ashland.....	4,618,325	3,985,650	4,716,250	4,676,165	3,172,617	3,108,338	3,876,560	3,389,710	2,977,070	2,842,200
Ashtabula.....	7,708,970	7,174,209	7,669,982	6,946,966	6,389,740	7,545,864	5,889,479	5,818,727	5,580,978	6,877,055
Athens.....	1,665,270	2,262,860	1,576,325	1,866,745	1,053,000	1,190,440	1,149,415	1,453,600	1,684,378	836,500
Auglaize.....	1,640,600	2,103,725	1,151,375	1,198,825	1,133,350	910,580	1,008,850	769,160	714,300	1,128,900
Belmont.....	2,297,560	2,297,005	2,066,613	1,882,010	1,543,737	1,448,850	1,810,741	1,954,380	1,499,120	1,817,200
Brown.....	3,423,820	3,282,760	4,210,635	5,655,192	2,850,531	3,236,357	2,664,350	2,833,070	2,707,050	1,965,797
Butler.....	1,669,720	2,020,434	1,900,050	1,576,300	1,805,150	1,834,587	1,795,550	1,303,035	985,300	750,050
Carroll.....	2,511,665	2,778,965	2,538,445	2,394,150	2,072,910	1,943,650	1,932,819	2,008,600	1,782,700	1,666,360
Champaign.....	3,018,700	3,537,735	3,118,925	2,420,075	2,002,220	2,604,650	3,079,912	2,037,400	1,655,960	2,723,700
Clark.....	2,944,475	2,534,633	2,667,950	2,244,765	1,981,380	2,157,050	3,694,675	2,147,450	1,766,500	1,693,050
Clermont.....	5,934,064	6,372,950	6,230,725	5,040,070	4,881,300	4,734,428	5,016,290	3,888,685	2,082,488	1,220,237
Columbiana.....	5,243,425	4,866,255	5,523,695	6,086,895	3,853,590	4,086,425	3,978,372	3,913,630	3,005,485	2,665,690
Coshocton.....	3,238,125	3,210,565	3,691,987	3,082,321	2,488,280	2,126,965	2,056,550	2,008,700	1,911,775	3,543,110
Crawford.....	3,189,960	3,340,180	3,682,450	3,226,710	2,822,805	2,760,878	3,184,580	2,865,235	2,474,250	1,915,280
Cuyahoga.....	5,118,620	4,409,262	4,277,474	4,262,700	3,644,400	4,024,360	4,552,980	5,680,400	4,874,950	3,905,200
Darke.....	2,837,190	5,045,195	5,770,090	2,951,610	2,735,260	2,777,800	3,322,085	2,219,365	1,404,464	1,591,600
Delaware.....	974,225	1,142,551	890,785	435,425	343,800	350,200	316,380	320,100	213,360	98,700
Delaware.....	2,615,025	2,720,735	3,067,750	2,475,760	1,589,300	1,617,632	1,833,260	1,760,042	1,343,130	1,180,280
Erie.....	2,870,366	2,974,900	4,076,125	3,143,530	2,999,175	3,004,760	2,277,503	2,309,600	1,870,990	2,104,000
Fairfield.....	5,373,000	7,916,545	7,806,175	7,268,150	5,710,000	5,577,705	5,348,200	5,686,710	4,897,860	4,101,710
Payette.....	2,778,120	5,711,100	5,683,150	2,368,175	2,180,000	3,029,120	3,174,291	2,671,150	2,647,760	2,158,600
Franklin.....	1,870,120	4,280,225	3,600,550	2,968,720	1,847,500	1,750,550	1,859,775	2,500,558	2,113,340	2,479,600
Fulton.....	1,646,476	2,232,223	1,576,576	1,188,070	1,532,465	1,665,562	588,200	296,250	132,600	109,550
Geauga.....	1,572,580	1,553,440	1,372,709	1,586,372	1,239,995	1,502,435	1,074,120	1,342,106	1,122,850	1,109,550
Greene.....	3,760,190	3,789,000	4,142,600	4,529,350	3,466,490	3,068,900	3,460,965	3,408,985	3,038,900	2,709,850
Guernsey.....	4,287,207	4,237,207	2,967,768	2,773,660	3,492,890	3,819,350	3,418,760	2,897,684	2,013,250	1,953,950
Hamilton.....	2,408,625	2,238,447	2,150,750	2,029,060	1,477,310	1,576,440	1,688,580	1,883,599	1,381,710	1,565,350
Hancock.....	924,525	64,525	3,062,293	441,900	844,200	403,800	370,146	370,146	206,375	40,200
Hamilton.....	1,782,715	3,577,075	1,714,312	1,866,590	882,732	987,907	1,000,500	648,675	648,675	666,000
Hardin.....	2,166,425	1,866,130	1,686,625	1,461,025	1,038,650	581,525	624,900	1,501,450	648,675	316,481
Harrison.....	2,936,425	1,080,695	970,200	1,960,464	654,975	600,910	708,600	708,600	701,440	832,865
Henry.....	900,213	1,194,175	1,363,270	1,363,270	559,970	669,908	212,600	158,050	154,810	74,900
Hocking.....	8,489,380	7,662,458	6,165,398	7,547,468	5,678,910	6,069,908	6,089,940	5,933,550	5,537,280	6,536,638
Hocking.....	2,481,250	2,870,670	2,533,850	3,090,985	2,064,420	2,180,980	1,746,705	2,222,700	2,013,610	1,751,007
Holmes.....	3,823,300	3,416,990	4,383,050	4,098,650	3,753,040	2,485,124	2,872,000	2,708,125	2,106,470	1,894,100
Huron.....	6,963,430	7,814,690	7,112,096	7,112,096	5,549,980	6,069,150	6,848,330	5,494,000	4,984,400	3,899,270
Huron.....	2,890,440	2,692,060	2,614,268	2,614,268	1,631,110	1,602,838	2,434,600	1,651,150	1,356,260	1,394,600
Jackson.....	1,580,560	1,531,410	1,417,675	1,344,330	1,233,235	1,275,375	1,408,310	1,349,025	1,359,650	1,440,190
Jefferson.....	5,327,375	6,700,225	5,064,317	5,071,675	2,980,413	2,975,570	3,105,940	3,105,560	3,105,420	3,080,100

CROP AND OTHER STATISTICS

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Lake Lawrence	2,917,980	2,664,350	2,858,505	2,470,848	1,745,102	2,248,120	2,283,450	1,784,000	2,073,858	1,547,755
Lake Michigan	6,239,136	7,420,920	6,172,647	5,323,024	4,162,041	4,166,864	3,747,800	3,077,377	1,790,020	3,389,800
Lake Huron	1,896,525	1,698,776	1,045,025	961,300	869,575	919,280	3,744,560	933,300	3,605,280	3,262,860
Lake Erie	6,069,666	6,063,900	6,304,410	6,294,410	4,259,060	4,260,837	5,002,200	4,990,085	3,869,376	5,893,960
Lucas	1,237,895	1,731,710	1,372,220	1,162,250	671,383	554,701	471,968	441,140	389,600	138,500
Madison	2,136,114	3,136,195	1,951,214	1,933,000	694,850	756,350	510,904	539,320	290,600	370,900
Manitowish	4,953,950	4,460,102	5,761,952	5,152,780	5,158,500	5,074,275	4,410,884	4,318,440	4,140,875	3,545,154
Marion	1,469,500	1,850,650	1,715,150	1,779,660	978,925	1,027,625	878,135	764,500	610,900	462,100
Medina	8,035,872	7,850,737	9,666,630	8,719,620	7,136,001	7,051,271	7,533,000	7,060,500	7,252,300	6,035,900
Melrose	2,043,140	2,080,075	2,373,300	2,564,255	1,852,475	1,875,225	1,785,250	1,949,140	1,717,550	1,698,610
Mercer	1,387,003	1,125,390	1,500,430	1,109,675	862,900	883,700	1,477,560	861,470	576,550	849,000
Monroe	2,949,260	3,938,083	2,837,650	2,463,371	2,356,850	3,216,230	3,215,176	2,553,720	1,953,129	1,577,300
Montgomery	2,084,351	2,295,800	2,440,200	2,118,515	1,588,640	1,798,480	2,476,710	2,199,710	2,156,680	2,053,560
Morgan	3,390,855	5,091,910	4,845,950	4,832,188	5,004,200	5,038,470	4,494,260	4,084,028	3,400,750	3,512,400
Morgan	2,723,950	3,142,964	3,063,900	2,861,393	1,980,625	1,355,714	2,393,212	2,478,405	2,220,622	1,923,300
Morrow	3,763,375	4,008,095	4,284,340	4,293,400	3,257,890	3,240,856	3,232,802	3,384,554	3,969,866	2,796,490
Muskingum	4,438,625	4,312,380	3,853,257	3,473,845	3,152,890	3,006,267	3,685,120	3,458,661	3,830,040	2,908,100
Noble	1,628,275	1,525,470	1,456,525	1,363,470	1,042,510	1,081,050	1,385,165	1,278,370	1,144,560	1,104,354
Ottawa	122,900	138,800	12,500	30,400	20,000	8,150	5,000	8,500	8,200	5,000
Paulding	153,075	263,000	91,363	46,025	67,355	53,300	15,020	3,930,477	3,740,720	3,543,217
Perry	4,905,720	5,873,510	4,900,270	5,136,375	4,247,735	4,472,040	4,221,395	4,764,570	3,380,940	3,326,967
Pickaway	8,083,560	8,621,085	7,161,500	7,090,925	5,881,906	5,068,005	4,744,300	4,764,570	2,497,459	1,633,920
Pike	3,141,660	3,447,600	3,563,785	3,734,325	2,632,050	2,896,061	2,911,670	2,478,405	5,522,950	5,043,600
Portage	6,683,876	7,057,996	7,181,202	7,444,420	5,114,174	4,894,930	4,939,950	5,522,950	5,589,405	6,003,590
Preble	8,180,800	8,557,470	8,197,395	6,493,875	7,949,810	7,427,340	7,196,930	6,623,200	5,490,775	5,000
Putnam	426,275	503,879	185,600	68,400	34,575	38,300	23,600	34,400	25,400	5,500
Richland	4,498,460	4,226,085	5,260,930	4,983,260	4,804,842	4,571,066	4,163,560	3,784,360	3,562,310	2,979,240
Ross	6,105,100	6,272,595	5,490,375	5,433,975	4,143,555	4,560,900	5,339,010	3,833,250	2,733,550	3,136,759
Sandusky	2,576,010	4,509,400	3,515,275	3,032,505	2,259,650	2,535,760	1,572,901	1,387,650	1,081,300	506,750
Seneca	3,158,310	2,751,040	3,808,125	4,062,847	3,216,300	2,535,760	2,716,485	2,943,401	2,951,490	2,520,090
Shelby	6,819,525	7,898,720	7,329,540	6,491,120	5,781,620	6,361,250	6,711,278	7,782,279	4,912,000	4,194,850
Stark	1,814,900	2,442,050	2,031,365	1,899,570	2,203,100	1,821,880	1,927,070	1,392,200	1,407,913	1,164,850
Summit	6,558,318	7,339,690	8,536,831	8,452,690	6,509,581	6,095,675	5,893,830	5,906,001	5,775,427	4,560,890
Summit	4,515,375	4,851,870	6,800,860	6,188,633	3,811,600	3,687,800	4,192,760	4,067,641	3,769,580	3,097,400
Trumbull	5,520,914	4,491,180	5,181,475	5,188,317	3,489,160	3,434,729	4,056,280	3,785,737	3,953,256	5,072,139
Tuscarawas	2,996,495	2,739,529	2,789,760	2,684,655	1,735,720	1,860,206	1,931,076	1,975,810	1,576,091	1,554,318
Union	1,567,150	1,810,350	15,860,300	1,112,125	738,700	758,345	1,116,400	820,850	740,500	777,300
Van Wert	66,850	143,250	50,600	65,300	24,900	117,200	52,400	1,036,900	1,020,000	1,115,500
Vinton	2,124,625	1,845,335	1,523,525	1,481,759	1,169,200	1,075,100	919,590	2,565,770	2,026,460	1,398,140
Warren	2,961,900	3,127,600	2,752,490	2,031,465	2,339,455	2,804,000	2,541,450	4,223,613	3,653,652	3,456,730
Washington	4,244,298	4,279,249	4,140,489	4,317,532	3,595,630	3,780,897	4,126,767	9,711,358	8,154,470	6,537,870
Wayne	10,194,780	11,076,560	11,147,035	11,020,890	8,882,122	8,341,923	8,105,288	967,525	197,000	164,200
Williams	2,317,000	2,317,000	1,306,960	1,144,947	566,300	542,050	331,470	483,200	288,200	387,100
Wood	1,514,285	1,630,450	1,234,250	969,775	821,425	787,425	693,420	1,728,450	1,207,725	1,045,310
Wyandot	1,364,950	2,939,700	3,067,840	2,302,205	1,665,080	1,778,900	2,011,950	1,728,450	1,207,725	1,045,310
Totals	303,507,885	321,850,882	349,016,233	292,767,506	232,517,524	236,042,803	242,707,109	230,615,398	202,700,698	189,857,217
Total cost	\$3,481,509	\$4,033,324	\$4,220,591	\$3,139,702	\$3,764,483	\$2,433,627	\$2,426,752	\$2,228,190	\$1,932,792	\$1,754,758

Average number of pounds for 10 years, 260,159,219.

Average cost for 10 years, \$2,944,575.

COMPARATIVE TABLE SHOWING PRODUCTION OF WOOL IN OHIO FOR TEN YEARS.

Counties.	Pounds Shorn.									
	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.	1903.
Adams.....	27,795	40,039	38,109	39,565	31,327	28,481	26,581	29,572	25,560	28,105
Allen.....	88,146	103,058	99,411	111,361	91,882	96,624	81,817	71,427	64,999	63,852
Ashtabula.....	195,463	238,038	250,069	252,603	214,581	232,845	214,109	187,791	145,780	143,533
Ashland.....	44,832	49,799	36,387	30,914	40,448	44,589	39,415	32,932	39,866	42,671
Athens.....	280,816	263,845	282,785	326,307	298,825	249,044	233,169	227,555	240,263	184,062
Auglaize.....	31,417	43,025	46,595	61,461	46,277	38,549	25,210	23,160	28,713	38,604
Belmont.....	333,797	387,052	382,114	490,733	455,423	440,030	402,889	415,601	340,074	407,696
Brown.....	47,272	41,149	41,795	44,955	38,014	32,941	28,357	31,768	32,945	31,552
Butler.....	34,755	49,368	43,075	48,500	35,759	42,649	41,903	37,798	30,436	35,948
Carroll.....	338,904	387,203	379,995	393,003	375,191	343,026	284,975	305,014	314,190	283,894
Champaign.....	94,068	157,051	130,333	123,074	116,163	103,794	121,905	136,434	84,601	93,830
Clark.....	115,064	148,322	122,165	141,090	107,852	133,009	115,793	116,091	107,295	355,472
Clermont.....	12,342	16,699	16,778	20,471	17,211	16,472	17,113	11,038	13,976	98,868
Columbiana.....	94,122	74,665	104,384	87,944	109,997	95,223	78,560	92,153	99,304	12,079
Coshocton.....	122,136	136,678	147,324	175,259	143,668	142,715	141,325	130,614	125,685	112,175
Crawford.....	588,227	732,057	708,245	710,702	700,125	613,491	578,128	505,458	523,301	505,728
Cuyahoga.....	285,722	351,602	346,837	325,050	305,598	301,161	294,338	240,193	227,544	214,644
Darke.....	16,146	19,147	21,565	22,654	21,505	25,957	23,985	20,983	21,391	22,705
Defiance.....	32,569	32,569	29,353	33,645	23,123	25,221	23,228	28,834	30,473	22,953
Delaware.....	61,374	83,183	86,663	93,431	114,121	85,382	78,089	73,409	78,404	66,422
Erie.....	335,379	337,693	327,693	298,413	244,419	263,144	235,436	219,036	214,661	181,386
Fairfield.....	60,447	60,447	79,229	86,891	62,917	82,882	68,234	48,681	49,261	56,561
Fayette.....	88,538	96,365	96,365	88,512	92,248	120,880	72,465	54,418	59,266	59,561
Franklin.....	71,750	67,119	54,839	44,187	29,037	30,933	40,238	33,346	30,328	36,189
Franklin.....	48,557	55,124	52,152	42,926	41,179	58,023	38,644	37,305	32,632	42,351
Fulton.....	35,352	40,303	44,075	56,474	66,038	72,152	78,629	74,111	79,895	70,011
Galena.....	80,438	89,841	86,079	83,620	68,787	61,288	61,313	54,307	34,083	36,688
Geauga.....	24,245	24,245	24,874	30,974	24,874	24,000	23,755	19,068	19,823	27,535
Greene.....	99,478	120,287	108,476	100,580	122,506	119,697	106,095	92,827	100,203	82,988
Hamilton.....	495,515	521,018	496,710	521,752	466,040	442,370	412,323	417,606	385,649	358,805
Hancock.....	6,145	6,978	4,664	8,403	7,770	7,943	5,204	5,343	5,343	6,210
Hardin.....	125,910	229,219	214,266	208,098	210,575	210,258	198,140	198,069	198,069	187,824
Harrison.....	180,658	199,609	211,510	209,120	109,030	145,672	133,128	133,325	130,451	153,453
Harrison.....	720,481	776,994	800,661	820,217	682,166	728,078	684,147	624,036	625,140	676,202
Henry.....	21,621	31,370	38,241	53,630	37,585	34,448	36,814	32,847	30,745	33,062
Hocking.....	88,122	112,063	92,835	92,197	80,981	88,430	58,300	56,405	59,006	54,992
Hocking.....	50,836	70,462	60,287	96,473	89,847	78,724	89,543	75,603	75,656	77,642
Holmes.....	106,040	152,806	130,384	149,525	160,736	151,892	146,892	81,647	80,997	82,173
Huron.....	388,868	498,575	483,835	471,849	434,177	392,370	368,768	345,780	321,771	317,839
Jackson.....	16,475	15,263	15,548	17,723	14,420	17,004	14,145	13,404	18,617	24,159

Jefferson.....	265,910	324,127	277,046	289,181	250,339	251,214	274,029	203,201	384,108	227,873
Knox.....	723,054	1,054,975	968,708	977,941	778,111	567,155	675,275	675,251	674,802	670,670
Lake.....	16,235	9,605	14,906	11,847	22,031	13,895	18,862	14,344	14,873	18,063
Lafayette.....	3,099	5,010	3,947	4,061	4,271	3,379	2,976	3,082	3,168	3,223
Licking.....	682,175	807,564	748,394	771,333	680,207	585,204	603,352	562,816	525,813	566,631
Loran.....	186,222	211,235	240,499	216,350	225,816	171,339	170,319	183,250	148,083	161,967
Lorain.....	94,530	107,820	110,083	133,074	93,427	97,879	99,020	95,890	78,498	94,754
Lucas.....	8,760	8,966	7,419	10,760	8,665	11,723	8,978	8,318	10,228	8,314
Madison.....	103,812	136,567	157,386	242,050	78,214	86,522	64,502	74,244	70,527	49,084
Madison.....	94,405	114,978	111,520	111,237	115,129	105,090	99,967	85,491	86,957	98,461
Marion.....	360,560	373,513	378,513	385,906	297,719	280,812	283,012	239,992	237,484	260,585
Medina.....	97,217	102,803	127,226	131,580	132,266	160,300	126,307	110,496	111,689	122,864
Meigs.....	160,666	181,578	195,864	210,299	168,942	185,662	135,071	103,730	141,077	126,147
Mercer.....	46,317	61,952	56,116	66,455	42,722	53,982	40,415	36,942	40,513	45,935
Miami.....	13,709	11,288	10,408	12,339	7,601	10,435	9,674	5,340	5,470	7,357
Monroe.....	61,381	85,710	92,268	90,621	70,235	52,863	50,508	51,292	51,792	56,006
Montgomery.....	11,883	13,724	12,632	13,605	9,953	11,701	8,463	9,093	9,336	9,360
Morgan.....	485,245	555,052	563,368	567,288	517,348	462,396	411,225	382,655	375,818	330,456
Morrow.....	446,913	574,802	571,046	611,299	477,346	454,811	472,424	428,241	390,846	423,541
Muskingum.....	628,321	717,349	678,514	497,832	640,367	575,136	581,551	494,537	487,430	461,199
Noble.....	365,089	424,773	443,546	490,810	415,445	367,615	330,549	313,637	283,441	280,199
Ottawa.....	24,121	31,707	30,882	44,377	31,900	36,955	35,063	25,028	24,287	23,954
Paulding.....	40,396	53,860	56,060	58,466	54,714	40,421	37,026	33,261	32,860	32,370
Perry.....	100,415	204,593	187,956	218,989	190,432	174,394	155,496	131,780	142,103	133,946
Pickaway.....	38,698	49,501	46,239	46,085	33,601	29,413	33,024	33,700	27,346	30,548
Pike.....	13,667	16,570	17,902	18,578	15,368	15,972	13,735	18,865	17,294	10,007
Portage.....	100,094	112,224	87,712	85,345	101,811	90,127	90,938	76,791	81,813	89,983
Preble.....	27,123	37,328	29,965	31,323	24,434	29,587	19,906	20,784	23,581	19,050
Putnam.....	43,692	72,771	50,346	59,845	45,058	49,106	49,026	55,104	42,325	45,510
Richland.....	206,175	268,008	263,602	276,089	255,911	225,040	225,625	202,193	216,985	182,576
Ross.....	48,516	66,391	70,131	101,531	39,251	35,049	46,833	27,277	13,874	26,820
Sandusky.....	54,556	84,843	72,630	79,059	72,308	72,312	57,758	59,511	63,532	73,734
Scioto.....	2,310	2,943	2,837	2,281	1,941	2,218	2,453	3,912	4,725	5,018
Seneca.....	274,251	283,396	283,396	515,841	258,501	245,874	255,550	226,792	158,573	179,776
Shelby.....	29,703	28,934	34,943	43,109	27,806	24,995	23,334	23,334	22,383	20,899
Stark.....	50,297	83,419	83,419	103,092	87,173	86,801	79,065	72,850	70,755	80,752
Summit.....	15,791	20,214	25,333	29,253	26,333	23,109	24,502	22,935	28,682	29,015
Tuscarawas.....	68,001	80,166	80,166	95,661	79,310	65,035	66,945	66,091	67,197	71,316
Union.....	184,974	181,382	183,704	183,704	167,041	165,649	156,970	145,132	142,171	144,611
Van Wert.....	311,979	302,983	326,328	236,328	225,197	225,916	231,553	239,405	150,453	182,822
Vinton.....	68,627	72,733	72,733	72,733	69,405	68,096	61,738	61,107	56,034	41,512
Washington.....	113,729	127,235	154,844	154,844	105,565	93,609	77,946	75,648	70,719	92,981
Wayne.....	47,354	37,060	32,736	33,317	33,317	23,948	20,506	25,682	20,622	27,870
Williams.....	198,524	231,984	264,596	218,858	218,858	102,620	180,076	137,147	141,073	140,103
Wood.....	85,216	102,715	117,744	108,020	101,882	101,882	103,944	95,464	99,838	90,103
Wyandot.....	127,225	143,432	146,847	140,198	184,042	184,042	184,042	164,597	161,361	164,295
Wyandot.....	58,271	82,754	77,455	65,541	64,566	53,902	46,845	43,481	45,447	52,661
Wyandot.....	323,763	414,794	505,632	440,066	365,974	337,322	338,809	326,206	323,912	320,515
Totals.....	12,959,110	15,925,603	15,767,667	16,396,633	13,752,009	13,394,168	12,789,451	11,826,237	11,426,576	11,762,687

Average for 10 years, 13,600,013 pounds.

TABLE SHOWING THE NUMBER OF HORSES IN OHIO FOR TEN YEARS, INCLUDING CITIES AND RURAL DISTRICTS.

Counties.	Number of Horses.									
	1913.	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.
Adams.....	5,964	6,228	5,811	5,874	5,281	5,368	4,802	4,863	4,804	4,723
Allen.....	9,278	10,636	10,765	10,488	10,111	9,603	9,494	9,594	9,429	8,945
Ashland.....	8,109	8,302	8,166	7,615	7,536	7,577	7,471	7,350	7,471	7,768
Ashabula.....	11,790	12,180	11,960	10,586	10,010	10,282	9,138	9,323	9,614	9,609
Athens.....	4,063	4,317	4,725	4,928	4,754	4,928	4,634	4,705	4,495	5,168
Auglaize.....	10,503	10,386	10,212	9,384	8,941	8,976	8,938	9,117	8,729	8,626
Belmont.....	8,916	8,634	8,573	8,143	8,503	8,075	8,295	8,403	8,112	8,034
Brown.....	7,896	8,241	7,979	7,544	7,160	7,342	6,692	6,562	6,362	4,559
Butler.....	10,655	10,957	11,387	11,099	11,024	11,147	11,367	11,107	10,784	10,435
Carroll.....	5,639	5,728	5,065	4,622	4,533	4,261	4,128	4,020	4,340	4,521
Champaign.....	11,728	11,756	11,679	11,500	11,116	11,032	10,584	10,623	10,640	10,400
Clark.....	12,197	12,562	12,658	11,997	11,834	11,440	11,329	11,485	11,213	10,915
Clermont.....	7,991	8,254	7,833	7,195	7,037	7,017	6,983	7,352	6,745	6,431
Clinton.....	9,598	10,802	10,628	10,152	10,013	9,895	9,599	9,436	9,347	9,459
Columbiana.....	10,841	10,812	10,632	10,004	10,019	9,649	9,552	10,164	7,700	9,927
Coshocton.....	7,016	6,821	7,135	6,632	6,703	6,587	6,587	6,582	6,127	5,720
Crawford.....	9,517	9,364	9,479	9,066	8,723	8,683	8,832	8,835	8,768	8,647
Cuyahoga.....	15,797	16,315	22,629	17,217	16,819	17,428	18,641	18,563	18,855	17,424
Darke.....	19,322	19,471	19,051	18,876	18,757	18,081	17,835	17,375	17,150	16,347
Defiance.....	8,394	8,333	7,062	7,297	7,235	7,095	6,933	6,326	6,582	6,078
Delaware.....	10,076	10,173	10,089	9,653	8,956	8,676	8,081	7,695	8,176	8,139
Erie.....	6,489	6,305	6,261	5,891	5,782	5,843	5,849	5,610	5,598	5,424
Fairfield.....	11,761	11,713	11,965	11,113	10,926	10,476	10,203	10,222	10,223	9,761
Fayette.....	11,275	11,619	11,197	10,905	10,692	10,323	9,767	9,550	9,486	9,033
Franklin.....	15,871	16,286	18,228	15,135	14,174	14,100	14,956	15,329	14,978	14,808
Fulton.....	8,774	8,568	8,625	8,211	7,773	7,490	7,154	6,847	6,950	6,883
Gallia.....	5,340	5,504	5,431	4,830	4,584	4,543	4,514	4,543	4,474	4,486
Geauga.....	6,204	6,280	5,752	5,731	5,579	5,623	5,309	5,160	5,102	5,134
Greene.....	11,109	10,024	10,967	10,816	10,657	10,067	10,025	9,936	10,028	9,659
Guernsey.....	7,250	7,356	6,848	5,918	5,535	5,513	5,140	5,244	5,007	4,928
Hamilton.....	14,662	14,903	15,593	15,033	15,455	15,923	16,143	16,675	16,115	16,483
Hancock.....	11,600	11,830	11,592	10,788	10,452	9,920	9,933	10,364	10,498	10,863
Hardin.....	10,776	11,056	11,487	9,610	9,568	9,449	9,060	8,968	8,916	8,304
Harrison.....	5,401	5,336	5,195	5,008	4,750	4,773	4,787	4,998	5,092	4,854
Henry.....	8,996	9,095	9,081	8,591	8,185	7,692	7,391	7,157	7,137	6,832
Highland.....	10,614	10,336	9,836	9,368	8,566	8,796	8,632	8,371	8,390	8,166
Hocking.....	4,277	4,389	4,298	3,794	3,769	3,653	3,800	3,841	3,571	3,583
Holmes.....	7,359	7,459	7,603	7,212	6,989	7,173	6,874	7,150	6,825	7,292
Huron.....	9,956	9,802	9,231	8,496	8,007	8,500	8,437	8,545	8,111	7,907
Jackson.....	3,659	3,818	3,835	3,680	3,438	3,385	3,233	3,405	3,218	3,214

Jefferson.....	5,732	5,819	8,897	5,776	5,767	5,697	5,682	5,713	5,661	5,590
Knox.....	9,145	7,728	9,035	8,545	8,321	8,328	8,332	8,170	8,166	7,872
Lake.....	4,690	4,850	4,853	4,509	4,498	4,540	4,744	4,740	4,446	4,412
Lawrence.....	3,765	4,315	4,316	3,760	3,559	3,656	3,409	3,716	3,636	3,805
Licking.....	15,493	13,912	14,133	13,634	13,110	12,827	13,135	12,247	12,272	13,046
Logan.....	11,540	11,550	11,165	10,859	10,808	10,384	9,853	9,846	9,876	9,276
Lorain.....	10,170	10,809	10,672	10,188	10,040	10,135	9,853	9,053	9,410	9,132
Lucas.....	5,243	5,485	5,163	8,726	8,543	8,514	8,653	9,688	8,829	9,504
Madison.....	12,211	12,857	12,135	12,450	10,848	10,440	10,341	9,688	9,758	9,501
Mahoning.....	8,142	9,927	10,079	9,154	8,929	10,271	9,000	6,053	6,033	8,576
Marion.....	9,149	9,441	8,726	8,299	7,953	7,906	7,945	7,761	7,756	8,761
Medina.....	9,290	8,988	9,415	9,458	8,771	8,411	8,626	9,026	9,036	8,449
Meigs.....	5,046	5,270	5,478	4,573	4,175	4,176	4,009	4,280	4,261	4,806
Mercer.....	12,228	12,397	12,293	10,955	10,810	10,573	10,259	9,794	9,794	9,896
Miami.....	9,431	10,253	12,945	12,551	12,118	11,766	11,704	11,325	11,328	11,328
Monroe.....	4,992	5,008	5,004	5,298	4,392	4,399	4,637	5,042	4,925	5,036
Montgomery.....	15,126	15,367	16,697	16,288	16,543	15,363	16,154	16,007	15,719	15,998
Morgan.....	4,642	4,572	4,863	4,776	4,590	4,619	4,369	4,690	4,593	4,578
Morrow.....	8,402	8,279	8,674	8,269	8,126	7,939	7,911	7,713	7,503	7,350
Muskingum.....	7,294	9,576	9,382	9,162	8,703	8,938	9,004	9,032	9,090	9,092
Noble.....	5,554	5,725	5,282	5,001	4,657	4,542	4,118	5,456	4,440	4,392
Ottawa.....	6,026	6,764	5,959	5,403	5,566	5,349	5,437	5,363	5,210	5,564
Paidling.....	10,008	10,392	9,051	8,030	7,497	6,597	6,800	6,144	6,426	6,478
Perry.....	6,894	6,367	6,793	6,267	6,258	6,166	6,058	6,097	6,097	5,799
Pike.....	12,180	12,180	11,615	11,553	11,121	10,671	10,431	9,904	9,602	9,837
Pickaway.....	4,267	3,199	4,249	4,209	3,936	3,999	3,986	4,032	4,032	3,818
Portage.....	9,215	8,907	10,648	9,901	9,822	8,749	8,877	8,938	8,550	8,822
Preble.....	9,304	11,096	10,998	10,698	10,445	10,635	10,524	9,972	9,972	9,953
Pritikin.....	11,797	10,873	10,672	9,853	9,566	9,417	9,417	8,938	8,874	8,957
Richland.....	9,957	9,957	9,686	9,688	9,627	9,460	9,248	9,225	9,203	9,203
Rosa.....	12,045	10,656	11,400	11,334	10,815	10,285	10,514	9,085	8,618	8,760
Sandusky.....	9,712	9,692	9,488	8,962	8,853	8,909	9,166	8,413	5,449	5,458
Seneca.....	5,830	5,932	6,021	5,723	5,557	5,420	5,365	5,462	5,449	5,458
Shelby.....	11,866	12,391	11,645	11,280	10,357	11,264	10,214	10,071	10,001	9,014
Shelby.....	9,711	9,840	10,154	9,792	9,506	9,506	9,286	8,975	9,014	9,014
Starke.....	14,166	14,965	15,502	14,864	14,621	14,648	14,836	15,262	13,131	14,801
Summit.....	6,299	10,296	10,459	9,555	9,485	9,598	9,543	9,635	9,488	8,129
Summit.....	11,493	10,236	11,391	10,744	10,120	10,080	10,260	10,687	11,309	10,229
Tuscarawas.....	9,353	9,353	9,345	8,678	8,070	8,424	8,470	8,813	8,072	7,350
Union.....	10,361	10,361	10,253	9,425	8,777	8,551	8,282	8,452	8,067	8,459
Van Wert.....	11,159	11,299	10,207	9,700	9,787	9,296	8,984	8,729	8,651	8,459
Vinton.....	2,336	2,336	2,483	2,695	2,776	2,507	2,362	2,586	2,290	2,295
Warren.....	7,893	7,708	8,531	7,360	7,013	6,949	6,354	6,493	6,493	6,493
Washington.....	13,866	14,431	13,944	13,419	12,506	12,285	11,514	12,226	12,131	12,267
Wayne.....	9,899	8,033	7,990	7,244	7,353	7,353	7,350	7,447	6,931	6,931
Williams.....	13,847	16,418	13,649	11,633	11,714	11,445	11,025	11,268	11,565	11,278
Wood.....	8,923	8,969	9,101	8,313	8,747	7,929	7,902	8,006	8,078	7,705
Wyandot.....	8,923	8,969	9,101	8,313	8,747	7,929	7,902	8,006	8,078	7,705
Totals.....	816,170	825,613	850,557	787,835	765,032	765,361	744,119	746,016	730,156	728,204

TABLE SHOWING THE NUMBER OF CATTLE IN OHIO FOR TEN YEARS, INCLUDING CITIES AND RURAL DISTRICTS.

Counties.	Number of Cattle.									
	1913.	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.
Adams.....	9,694	9,447	10,210	9,571	8,962	9,366	9,197	9,900	10,346	10,467
Allen.....	11,921	13,550	14,780	14,393	15,435	15,208	15,732	16,496	16,014	15,690
Ashland.....	12,147	13,524	13,158	12,210	12,198	13,050	13,564	13,564	14,475	15,758
Ashtabula.....	27,664	29,752	29,752	29,220	27,170	26,110	27,369	29,290	30,385	30,186
Athens.....	11,299	9,043	10,757	9,743	9,310	9,019	16,125	9,533	9,597	10,069
Auglaize.....	15,811	15,486	17,014	17,263	15,912	16,155	16,369	17,237	16,426	16,972
Beltmont.....	17,978	17,535	18,234	18,483	18,247	17,587	17,587	17,647	17,981	17,801
Brown.....	12,598	13,128	12,853	11,924	11,808	11,143	10,472	11,263	12,159	12,804
Butler.....	15,547	15,743	16,191	15,008	14,690	15,733	16,063	16,890	15,967	16,820
Carroll.....	11,930	11,681	10,892	10,784	11,524	11,566	11,248	11,626	12,030	12,939
Champaign.....	16,013	15,224	18,425	17,856	16,746	16,224	15,486	18,711	17,843	18,297
Clark.....	17,186	18,012	19,720	18,103	17,431	17,106	17,350	19,081	17,798	28,474
Clermont.....	14,776	15,174	14,136	12,833	11,354	11,195	11,008	11,089	10,331	9,957
Clinton.....	12,033	14,041	14,566	13,348	12,356	13,529	13,869	15,615	15,604	15,957
Columbiana.....	18,978	19,604	19,984	19,163	19,352	19,096	19,111	20,294	19,835	21,727
Coshocton.....	13,359	12,957	14,321	14,329	14,791	15,757	16,433	16,313	16,213	17,796
Crawford.....	13,896	13,931	15,764	15,479	19,173	15,200	15,906	17,274	16,837	16,164
Cuyahoga.....	11,322	13,006	13,608	12,719	12,118	12,532	13,487	14,713	14,989	15,977
Darke.....	22,300	24,439	24,917	23,462	23,462	22,901	23,931	25,104	23,671	25,269
Defiance.....	9,137	10,098	11,230	10,954	10,813	10,596	10,696	11,343	11,614	10,358
Delaware.....	7,322	7,322	19,428	18,674	18,065	17,640	17,265	17,522	19,047	20,074
Erie.....	7,322	7,279	7,488	7,155	6,991	6,991	7,218	7,816	7,732	7,762
Fairfield.....	20,176	19,674	22,026	21,445	19,891	19,847	20,381	21,590	21,888	21,140
Fayette.....	14,169	13,203	15,401	16,320	15,164	23,637	17,500	21,621	19,765	18,739
Franklin.....	20,439	20,928	21,604	20,011	18,345	18,943	19,777	20,845	20,242	20,763
Fulton.....	15,774	16,302	18,452	18,480	18,526	17,193	17,179	16,798	16,313	17,524
Gallia.....	10,086	10,407	10,756	10,332	9,905	9,781	9,960	9,400	9,843	10,366
Geauga.....	19,317	20,428	20,428	19,386	19,024	18,741	19,741	20,125	20,426	21,471
Greene.....	15,814	12,999	17,188	15,701	15,396	14,935	15,088	15,819	18,523	17,656
Guernsey.....	14,460	14,648	13,854	15,701	14,906	12,719	13,408	13,408	13,457	13,161
Hamilton.....	14,299	15,156	15,758	14,784	14,269	15,454	16,200	16,456	16,635	17,799
Hancock.....	20,221	19,270	21,363	20,784	20,724	20,159	20,187	22,966	23,370	24,472
Hardin.....	14,706	15,545	17,402	16,083	17,765	18,071	17,987	19,406	19,017	19,232
Harrison.....	10,562	9,996	9,996	10,177	10,232	10,261	10,182	10,591	10,628	10,568
Henry.....	12,928	12,650	12,650	12,680	12,204	12,029	12,758	13,568	13,433	14,294
Hight.....	10,971	17,798	19,057	23,133	16,455	17,323	17,648	20,213	20,463	20,046
Hocking.....	8,460	8,546	8,725	8,970	8,930	8,930	8,960	8,891	8,884	9,274
Itasca.....	13,665	13,734	14,900	15,275	12,255	13,080	15,726	16,754	16,094	16,271
Jackson.....	12,144	12,863	13,204	12,353	11,390	11,944	12,615	13,763	14,132	15,158
Jackson.....	9,586	9,583	11,167	10,324	10,094	9,623	8,917	10,081	10,077	9,724

Jefferson.....	9,636	10,576	10,868	11,343	11,230	10,891	10,817	10,876	1,444
Knox.....	14,756	14,947	16,297	20,191	20,191	16,676	17,964	18,243	18,448
Lake.....	7,443	7,461	6,877	6,460	6,593	6,370	7,276	7,479	7,680
Lawrence.....	8,030	8,146	8,200	7,647	7,719	7,821	7,775	8,167	8,784
Licking.....	23,733	27,870	25,389	25,571	24,905	26,700	28,536	28,674	29,828
Logan.....	17,326	18,350	17,331	16,126	15,451	16,139	17,734	17,629	18,457
Loran.....	20,537	20,200	20,972	19,682	19,400	21,823	21,823	22,170	22,170
Lucas.....	8,977	9,788	9,407	9,334	9,262	9,463	9,625	9,676	10,268
Madison.....	18,030	18,304	18,438	18,834	18,831	18,735	21,432	20,936	19,876
Marion.....	16,179	16,033	17,289	16,302	17,196	18,240	18,874	16,429	17,986
Meigs.....	13,101	14,788	14,600	13,418	13,184	14,215	15,251	15,223	15,691
Medina.....	15,456	16,870	15,396	15,473	15,068	16,664	16,738	17,131	17,891
Mercer.....	10,251	10,180	10,191	12,967	8,750	8,078	8,556	9,452	9,688
Miami.....	16,921	16,697	17,327	16,577	16,622	17,001	18,188	18,135	18,763
Monroe.....	13,026	13,540	14,562	13,826	13,655	13,792	14,056	14,205	15,928
Montgomery.....	10,572	12,394	13,540	12,106	11,358	11,617	12,023	11,555	11,771
Morgan.....	18,380	19,090	17,857	16,520	17,437	18,867	19,381	18,897	19,788
Morrow.....	8,803	10,105	10,887	10,946	11,384	11,389	12,114	11,999	11,918
Muskingum.....	12,696	13,290	12,847	12,838	11,927	3,038	14,520	15,292	15,294
Noble.....	16,720	20,980	19,795	20,257	21,452	21,700	22,181	23,023	23,915
Oakland.....	13,528	13,558	14,575	13,553	13,804	13,365	14,381	14,866	13,864
Ottawa.....	6,884	7,797	7,997	7,997	7,599	7,843	8,542	8,198	8,960
Paulding.....	7,194	7,770	6,760	6,398	5,879	6,524	6,846	7,296	8,342
Perry.....	11,079	13,445	12,712	12,811	13,512	13,275	14,426	14,471	13,776
Pickaway.....	19,890	20,411	21,582	19,237	20,971	20,528	22,560	21,824	20,086
Pike.....	5,125	6,452	6,223	6,233	5,957	5,825	6,543	6,567	6,418
Portage.....	19,930	21,615	20,688	19,048	19,144	18,746	21,147	21,339	22,665
Preble.....	14,136	16,535	15,558	15,386	15,630	16,240	17,341	17,035	18,367
Putnam.....	15,058	15,239	15,558	14,881	14,571	16,239	17,892	17,672	19,328
Richland.....	16,790	17,397	17,853	16,970	16,368	17,369	17,049	18,650	18,906
Ross.....	17,815	15,957	17,638	17,644	17,440	19,570	21,241	20,744	20,744
Sandusky.....	12,807	12,673	12,005	13,311	11,769	13,550	13,739	14,212	14,966
Scioto.....	8,434	9,580	9,417	8,860	8,637	8,760	9,010	9,057	8,854
Seneca.....	16,522	17,263	16,963	16,058	16,344	17,442	18,645	18,813	19,423
Shelby.....	14,254	15,705	15,400	14,893	14,920	15,548	15,680	15,500	16,447
Stark.....	24,223	24,496	24,611	24,300	24,773	25,253	26,237	22,303	26,212
Summit.....	14,111	17,619	17,537	17,127	17,182	19,873	19,236	19,510	20,067
Tuscarawas.....	22,760	26,897	26,900	25,365	25,708	26,594	26,694	26,849	29,922
Union.....	18,195	18,914	18,392	17,731	18,130	19,618	20,581	20,485	20,230
Van Wert.....	13,495	16,372	16,038	14,900	11,486	14,305	15,748	15,879	16,544
Vinton.....	10,962	11,407	10,977	10,968	11,894	11,848	12,925	13,574	12,761
Warren.....	5,558	5,507	5,819	6,098	5,770	5,953	5,753	6,192	5,988
Washington.....	13,985	14,812	18,089	12,114	12,911	12,692	13,929	14,551	15,261
Wayne.....	13,923	15,842	17,718	15,068	14,501	14,070	14,112	14,591	14,690
Williams.....	22,148	24,105	23,802	22,722	22,722	22,040	23,769	23,758	25,848
Wood.....	13,358	16,623	14,221	15,063	14,450	15,286	14,390	14,380	14,963
Wyandot.....	20,362	21,156	17,422	17,681	16,841	16,860	18,332	20,840	20,840
Wyandot.....	11,772	12,070	12,108	12,558	11,943	12,926	13,542	13,542	14,406
Totals.....	1,280,081	1,372,639	1,335,368	1,307,528	1,306,994	1,319,414	1,407,115	404,688	1,464,324

TABLE SHOWING THE NUMBER OF MULES IN OHIO FOR TEN YEARS.

Counties.	Number of Mules.									
	1913.	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.
Adams.....	457	451	426	385	349	290	318	299	233	234
Allen.....	150	170	167	185	165	188	134	138	108	99
Ashland.....	374	172	164	114	172	100	112	110	134	85
Ashtabula.....	182	187	120	109	89	71	48	49	32	26
Athens.....	238	260	260	129	128	118	81	77	87	128
Auglaize.....	270	295	295	259	254	182	162	151	148	102
Belmont.....	263	244	690	232	238	246	212	266	316	502
Brown.....	528	516	513	427	405	320	303	315	332	322
Butler.....	822	799	753	741	614	572	604	522	514	508
Carroll.....	98	91	86	97	105	105	97	73	84	74
Champaign.....	563	579	538	606	501	474	395	361	332	295
Clark.....	609	610	676	638	610	544	487	501	475	392
Clermont.....	799	781	719	655	583	544	530	550	565	491
Columbiana.....	659	682	711	725	698	663	530	626	507	456
Coshocton.....	338	336	423	307	274	234	226	182	189	142
Crawford.....	149	149	201	178	178	160	159	174	157	162
Cuyahoga.....	269	274	287	250	245	180	165	138	145	141
Darke.....	211	194	424	170	84	101	114	107	106	62
Defiance.....	442	462	476	451	413	402	402	387	377	384
Delaware.....	124	120	108	89	83	66	65	55	62	49
Erie.....	190	182	183	183	182	174	163	230	159	132
Fairfield.....	67	49	29	9	22	18	20	20	11	16
Fayette.....	296	218	226	245	233	189	185	208	175	148
Franklin.....	412	408	459	414	519	385	356	385	458	310
Franklin.....	433	392	565	421	310	303	370	401	297	160
Fulton.....	85	75	66	60	60	34	23	35	30	22
Gallia.....	293	292	288	247	274	205	158	153	170	166
Geauga.....	68	72	81	50	45	45	46	82	53	26
Greene.....	586	601	613	599	573	577	411	385	316	261
Guernsey.....	184	165	422	188	308	401	387	345	330	230
Hamilton.....	1,401	1,693	1,840	1,219	1,243	1,300	1,083	1,022	1,014	1,936
Hancock.....	284	240	271	155	129	107	138	68	66	50
Hardin.....	280	234	304	237	187	40	134	123	113	106
Harrison.....	128	172	182	131	109	128	178	94	103	121
Henry.....	107	177	185	160	118	99	89	72	88	82
Higland.....	577	611	617	587	586	602	478	383	306	300
Highland.....	135	110	127	94	89	82	79	74	70	64
Hocking.....	189	107	184	97	81	101	64	64	59	54
Holmes.....	147	170	160	156	116	89	84	76	69	74
Huron.....	249	251	543	331	418	453	419	834	806	764

Jefferson.....	193	138	152	97	140	88	359	342	861
Knox.....	244	224	199	169	171	137	171	182	140
Lake.....	0	27	21	25	26	24	24	13	4
Lawrence.....	431	446	448	391	400	427	494	408	510
Licking.....	352	321	280	229	203	196	210	168	169
Logan.....	291	298	385	293	299	230	163	143	121
Logan.....	296	311	385	293	299	230	163	143	121
Lucas.....	67	46	69	42	47	100	96	22	40
Lucas.....	58	63	61	54	50	40	44	47	38
Madison.....	361	396	337	316	329	348	334	284	284
Mahoning.....	276	290	308	254	249	292	187	110	97
Marion.....	287	314	290	269	190	187	194	161	175
Medina.....	184	178	75	76	88	84	164	73	109
Mega.....	299	304	297	221	252	243	243	224	233
Mercer.....	242	234	209	173	165	161	145	165	182
Miami.....	575	654	638	536	531	478	433	385	370
Monroe.....	86	78	74	63	43	46	54	56	59
Montgomery.....	656	633	583	587	445	440	373	353	280
Morgan.....	120	120	176	47	43	55	38	35	39
Morrow.....	178	161	141	129	112	99	96	68	66
Muskingum.....	442	453	370	310	301	284	215	178	183
Noble.....	113	111	154	77	70	54	50	35	34
Noble.....	117	111	154	77	70	54	50	35	34
Ottawa.....	33	46	25	36	36	32	46	45	43
Ottawa.....	357	230	214	169	112	100	72	96	84
Pandling.....	33	46	25	36	36	32	46	45	43
Perry.....	108	93	86	84	81	70	74	70	186
Pickaway.....	602	634	467	399	335	322	332	294	335
Pike.....	309	285	307	286	291	259	217	218	205
Portage.....	134	144	106	80	74	60	82	165	111
Preble.....	786	780	703	672	650	587	419	398	353
Putnam.....	151	133	131	97	100	93	104	79	68
Putnam.....	165	407	388	300	247	184	157	162	140
Richland.....	416	440	276	240	216	208	195	220	181
Ross.....	333	321	276	240	216	208	195	220	181
Sandusky.....	94	68	79	79	72	51	36	39	44
Scioto.....	773	785	722	672	630	600	573	612	519
Seneca.....	201	214	200	168	149	147	573	142	180
Shelby.....	220	192	207	160	100	79	78	107	109
Stark.....	283	376	233	203	286	264	311	289	315
Summit.....	128	180	143	136	115	108	114	180	116
Summit.....	220	244	159	122	126	147	119	88	77
Trumbull.....	181	285	164	167	173	163	191	168	225
Trumbull.....	177	174	170	147	155	131	103	102	104
Union.....	154	164	152	156	158	177	191	234	202
Van Wert.....	303	185	162	197	240	185	119	149	125
Vinton.....	220	237	238	197	560	476	470	447	443
Warren.....	707	596	551	525	391	161	389	150	150
Washington.....	209	170	203	164	443	296	76	308	218
Wayne.....	514	456	443	457	391	96	55	58	58
Williams.....	228	197	145	139	120	94	76	94	78
Wood.....	268	219	180	141	139	89	187	159	131
Wyandot.....	231	205	185	143	168	171	187	159	131
Totals.....	27,120	26,637	24,340	22,334	21,083	18,893	18,086	18,047	16,990

TABLE SHOWING NUMBER OF SHEEP IN OHIO FOR TEN YEARS.

Counties.	Number of Sheep.									
	1913.	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.
Adams.....	6,613	7,539	8,266	7,497	8,074	8,284	7,072	6,243	6,448	5,404
Allen.....	12,430	19,990	22,547	23,431	23,801	22,369	20,530	18,199	15,848	15,280
Ashtabula.....	7,001	35,043	40,137	40,716	40,899	39,697	37,271	36,714	31,538	33,382
Athens.....	42,133	9,427	11,084	9,752	8,486	8,543	7,700	4,206	6,498	8,829
Auglaize.....	6,474	40,320	45,377	47,464	47,803	46,274	40,480	41,911	39,278	47,739
Belmont.....	52,263	8,903	10,340	10,000	9,444	8,665	8,806	7,328	6,738	7,163
Brown.....	56,067	56,067	68,441	73,870	83,297	76,086	72,593	85,143	58,318	63,507
Butler.....	7,804	9,483	10,432	10,245	9,215	7,840	7,362	7,061	7,169	6,732
Carroll.....	45,319	52,099	58,534	59,840	62,172	57,478	52,501	52,171	49,074	51,875
Champaign.....	15,617	26,744	30,038	26,405	24,607	22,416	22,651	21,718	19,793	15,993
Clark.....	19,220	24,961	27,830	20,224	25,265	22,525	23,617	20,909	20,675	20,522
Clermont.....	3,436	4,337	4,257	4,340	4,114	3,984	3,734	3,542	3,622	3,654
Clinton.....	15,690	24,252	23,571	20,507	18,435	17,828	16,389	15,357	15,217	15,217
Columbiana.....	17,858	21,998	27,898	27,326	26,935	28,768	24,493	25,331	22,050	24,750
Coshocton.....	81,632	81,632	93,554	95,818	98,618	93,685	89,785	80,962	75,694	74,759
Crawford.....	39,357	46,404	54,868	54,361	50,653	49,622	48,769	45,676	39,505	43,133
Cuyahoga.....	2,591	3,469	4,719	4,510	4,387	4,747	4,657	4,302	3,911	4,711
Darke.....	5,858	6,747	7,024	6,138	6,135	5,501	5,444	4,649	4,532	4,849
Defiance.....	9,568	13,508	16,938	16,414	16,379	16,564	14,835	14,206	12,530	13,889
Delaware.....	41,636	51,368	57,480	56,998	52,013	48,901	46,509	43,583	42,664	37,711
Erie.....	8,944	11,275	12,746	12,666	12,762	12,298	10,654	9,467	9,427	9,908
Fairfield.....	13,263	15,986	17,942	18,341	18,526	18,517	15,014	14,517	11,786	12,055
Fayette.....	19,019	21,775	27,630	19,163	14,423	11,600	10,689	9,969	7,659	7,720
Franklin.....	9,087	10,303	13,612	10,654	11,118	16,088	10,201	8,795	8,444	9,624
Fulton.....	9,180	11,019	13,256	14,165	14,066	16,701	15,306	14,367	13,518	15,455
Gallia.....	13,701	17,226	18,272	17,775	18,302	16,701	12,493	11,493	10,658	9,092
Geauga.....	3,974	4,790	5,571	6,033	5,772	5,288	6,099	4,598	4,469	5,553
Greene.....	19,033	21,468	23,181	22,228	20,502	17,767	16,018	14,877	15,599	15,511
Hamilton.....	61,115	70,583	82,060	79,688	81,709	75,989	69,618	67,202	63,849	60,549
Hancock.....	1,819	2,765	2,989	2,565	2,542	2,575	2,262	1,968	1,786	1,107
Hardin.....	34,800	41,097	42,236	42,236	38,842	39,020	37,222	36,567	34,189	36,130
Harmon.....	96,855	47,252	51,183	57,596	51,644	48,448	42,124	37,223	31,047	31,144
Harrison.....	96,942	104,239	116,995	122,426	113,451	113,451	107,365	102,736	95,406	91,171
Henry.....	4,296	6,067	7,539	8,201	8,208	8,636	7,007	6,460	5,776	6,926
HIGHLAND.....	22,612	25,548	28,566	26,559	22,858	21,620	17,959	16,025	17,456	13,327
HIGHLAND.....	12,821	13,993	16,015	15,435	16,518	15,829	14,041	12,800	13,396	14,121
Hocking.....	20,777	24,196	28,028	29,330	26,017	31,405	26,727	22,569	24,438	23,783
Holmes.....	45,140	57,583	58,744	58,778	54,576	56,498	52,159	52,775	45,977	48,254
Huron.....	3,941	3,784	3,763	3,576	4,062	4,330	3,582	3,738	3,829	4,501
Jackson.....										

Jefferson.....	37,354	48,727	49,544	51,087	47,609	44,036	43,308	40,593	42,774
Knox.....	99,696	102,157	123,849	128,577	120,377	116,250	104,455	96,078	96,505
Lake.....	2,738	3,425	4,065	3,763	3,657	3,998	4,035	3,610	3,792
Lawrence.....	1,671	1,782	1,904	1,701	1,815	1,442	1,431	1,414	1,499
Licking.....	98,737	107,123	123,167	120,655	106,371	101,573	98,380	85,580	89,546
Logan.....	31,336	41,463	48,293	47,810	37,551	32,564	30,699	25,986	26,623
Loran.....	12,645	15,014	18,155	18,427	17,158	15,893	16,206	15,518	16,272
Lucas.....	1,146	1,449	1,984	2,077	2,165	2,005	1,707	1,492	1,873
Madison.....	21,063	26,893	40,042	24,458	21,670	22,108	20,228	16,653	15,131
Mahoning.....	18,915	19,032	19,780	19,032	18,327	17,134	17,027	13,954	17,168
Marion.....	35,514	45,744	52,498	50,965	55,694	53,754	50,394	44,210	46,277
Medina.....	15,392	20,973	20,501	21,446	21,465	21,877	21,970	19,339	21,705
Meigs.....	26,712	32,597	34,169	33,993	28,563	25,064	24,172	25,364	24,350
Mercer.....	8,366	11,659	14,555	13,874	13,496	11,071	10,805	8,939	9,032
Miami.....	2,548	3,216	3,727	3,516	2,904	2,215	2,778	1,737	2,647
Monroe.....	10,033	10,942	14,060	16,641	12,678	10,431	10,451	9,641	9,109
Montgomery.....	2,903	2,948	3,475	3,007	2,894	2,915	2,227	1,991	2,069
Morgan.....	70,847	72,172	81,353	85,326	70,951	64,451	65,381	56,973	55,758
Morrow.....	55,105	68,078	76,893	77,169	70,890	70,085	67,080	61,644	61,644
Muskingum.....	75,714	99,641	107,436	97,593	94,642	91,237	86,791	85,334	81,016
Noble.....	49,858	54,644	68,454	68,050	58,867	51,018	50,839	49,698	45,358
Ottawa.....	3,027	4,621	5,783	6,224	6,012	5,388	5,641	4,408	4,787
Paulding.....	6,417	10,031	11,262	11,512	9,808	9,237	7,642	7,436	6,938
Perry.....	24,881	24,605	31,909	33,537	33,382	29,306	26,775	25,346	26,038
Pickaway.....	7,160	9,654	10,525	10,080	8,985	7,094	6,327	6,063	6,027
Pike.....	3,835	4,212	4,848	4,381	4,875	3,891	3,900	3,762	3,705
Portage.....	13,326	14,326	16,305	15,772	16,302	15,041	13,249	13,249	15,343
Preble.....	8,925	7,281	7,869	7,241	7,147	6,881	5,157	3,896	5,031
Putnam.....	8,442	12,202	14,730	15,134	13,142	13,570	11,328	10,143	9,831
Richland.....	31,208	40,108	46,472	47,316	44,621	41,917	39,422	34,824	27,747
Ross.....	10,848	12,344	15,467	16,914	11,563	9,567	8,754	8,071	7,890
Sandusky.....	10,523	14,684	17,330	18,009	16,917	15,357	13,695	13,528	14,595
Schoto.....	1,051	1,234	1,388	1,155	1,894	8,858	8,931	1,128	1,797
Seneca.....	39,191	37,314	41,795	44,290	42,681	37,507	38,990	35,048	35,427
Shelby.....	8,665	6,497	7,370	6,982	6,758	5,554	5,090	4,300	4,300
Stark.....	12,860	12,860	15,064	16,409	16,589	15,573	15,463	11,573	15,283
Summit.....	2,318	3,519	4,193	4,193	3,573	3,189	3,586	1,198	5,416
Trembulla.....	11,441	13,178	15,284	15,302	13,562	12,174	13,719	12,206	13,367
Tuscarawas.....	26,134	32,345	34,362	33,283	33,457	29,808	28,833	26,276	26,896
Union.....	35,976	46,210	53,480	49,492	36,999	39,447	37,411	32,166	20,850
Van Wert.....	8,124	11,808	12,776	12,048	12,906	11,650	11,052	10,088	10,804
Vinton.....	20,296	21,277	21,433	21,853	19,195	16,632	15,150	13,685	16,075
Warren.....	18,876	10,250	9,296	8,314	7,281	6,628	5,237	6,378	6,186
Washington.....	34,156	42,748	41,441	37,043	33,362	29,344	27,807	27,711	26,232
Wayne.....	16,607	19,636	21,159	20,064	20,264	18,429	19,534	17,211	17,421
Williams.....	17,709	27,620	23,745	23,244	26,027	25,743	25,324	22,862	25,722
Wood.....	16,494	14,440	14,156	14,565	16,515	11,951	11,951	11,032	11,032
Wyandot.....	58,402	72,023	77,437	72,664	68,212	65,830	63,589	58,913	60,690
Totals.....	1,982,993	2,355,448	2,702,804	2,671,571	2,464,794	2,294,138	2,200,010	2,005,553	2,033,072

TABLE SHOWING THE NUMBER OF HOGS IN OHIO FOR TEN YEARS.

Counties.	Number of Hogs.									
	1913.	1912.	1911.	1910.	1909.	1908.	1907.	1906.	1905.	1904.
Adams.....	9,424	8,177	9,094	7,256	7,066	10,366	9,890	7,488	7,943	8,899
Allen.....	23,049	28,785	27,142	22,815	24,061	30,782	31,441	23,123	22,416	19,911
Ashtabula.....	13,095	14,043	14,065	12,610	13,823	13,823	17,072	13,147	16,016	19,392
Astula.....	5,386	6,385	6,568	4,238	3,353	5,200	4,314	3,521	4,163	6,247
Barren.....	3,514	2,660	3,809	2,152	1,977	2,695	3,074	2,052	2,052	2,945
Bell.....	26,359	28,768	28,962	23,623	24,235	30,635	29,906	23,192	22,278	22,179
Belmont.....	8,209	7,728	8,616	6,637	6,521	8,994	8,994	7,640	7,208	9,105
Brown.....	18,904	20,710	20,765	15,870	17,539	21,224	21,219	16,088	16,558	20,549
Buckeye.....	24,910	26,976	28,705	24,349	22,801	28,558	25,266	18,938	20,804	24,376
Butler.....	6,944	7,347	6,994	6,269	6,418	8,235	7,859	6,333	7,113	8,509
Cambridge.....	36,677	37,922	36,704	30,083	29,544	35,397	33,375	29,004	34,731	35,287
Clark.....	28,031	27,019	30,881	25,801	26,779	29,515	28,089	23,167	24,743	25,400
Clermont.....	13,442	14,280	14,157	9,994	9,768	14,543	14,543	11,112	11,460	13,798
Columbiana.....	41,921	38,461	48,285	40,437	42,370	51,608	48,242	37,179	38,220	36,898
Coshocton.....	8,725	9,792	9,586	8,269	8,531	11,048	10,213	9,225	10,518	12,598
Crawford.....	12,502	17,535	11,654	9,537	9,269	12,392	14,898	10,666	9,812	12,535
Cuyahoga.....	26,093	27,342	26,351	24,035	23,568	26,244	27,818	28,265	22,780	24,216
Darke.....	1,723	2,102	2,463	1,806	1,438	1,943	2,140	1,996	2,185	2,610
Defiance.....	40,862	40,590	38,467	30,839	36,157	44,474	41,585	34,942	39,334	40,934
Delaware.....	15,151	15,487	13,161	9,584	9,538	16,624	16,544	13,548	16,683	15,243
Erle.....	21,022	21,388	21,852	19,175	17,554	21,041	20,658	14,334	17,751	23,375
Fairfield.....	35,205	35,052	33,159	27,155	28,293	35,587	35,563	28,556	29,035	32,465
Fayette.....	44,513	31,485	46,965	39,450	45,344	48,277	42,954	35,309	35,464	32,777
Franklin.....	22,375	23,516	22,652	17,736	18,778	21,764	23,853	20,840	23,003	23,694
Fulton.....	17,961	17,619	16,597	12,875	13,334	13,186	20,821	18,571	22,688	22,956
Gallia.....	4,468	4,462	4,585	3,565	3,574	5,131	4,760	3,755	4,081	5,344
Geauga.....	2,894	4,112	3,748	2,931	2,969	3,683	3,859	3,800	3,333	4,153
Greene.....	36,862	35,513	36,497	29,006	30,943	32,347	31,752	25,577	28,985	30,661
Guernsey.....	5,727	5,050	5,657	4,024	3,683	5,406	5,737	4,913	4,031	5,647
Hamilton.....	7,660	10,080	8,577	7,181	6,625	9,803	9,089	7,936	8,348	9,431
Hancock.....	44,838	45,819	38,553	31,491	32,228	39,621	37,324	28,980	34,198	36,663
Hardin.....	33,784	36,743	34,072	27,290	27,529	34,999	32,135	21,024	28,449	32,062
Harrison.....	5,575	5,590	5,100	4,454	3,964	5,093	5,277	4,487	4,140	5,404
Henry.....	13,731	15,106	13,946	11,262	11,939	15,063	18,134	14,949	18,167	18,743
Hills.....	39,128	36,781	38,589	32,423	32,631	40,313	39,283	30,939	28,899	32,627
Hocking.....	4,952	5,255	4,873	3,665	4,374	5,661	5,267	4,654	4,078	5,309
Houma.....	14,627	15,208	14,440	14,203	14,151	18,419	18,572	14,833	15,788	18,154
Huron.....	12,817	13,752	12,040	9,930	9,552	13,443	13,726	10,148	11,203	14,252
Jackson.....	3,197	3,743	3,429	2,656	2,459	3,598	3,177	3,178	3,012	3,446

Jefferson.....	5,254	5,057	5,566	4,550	4,576	5,904	5,772	4,932	4,966	5,811
Knox.....	20,778	16,616	17,844	15,847	17,864	17,882	19,351	15,404	16,253	21,080
Lake.....	1,972	2,324	2,096	1,579	1,295	1,711	1,658	1,289	1,546	2,057
Lafayette.....	3,585	3,621	4,471	3,513	2,797	4,228	3,667	3,143	3,050	4,078
Licking.....	25,277	24,062	25,965	20,135	20,800	27,332	28,788	22,224	23,269	28,555
Logan.....	24,561	28,565	26,820	22,272	24,419	32,558	34,870	24,659	27,000	29,309
Loran.....	8,711	6,986	7,093	6,432	7,330	8,089	8,089	6,412	7,001	8,412
Lucas.....	8,769	9,945	8,906	7,125	6,510	8,602	7,456	6,604	8,952	9,022
Madison.....	40,169	35,936	37,739	33,370	35,660	43,919	41,010	30,803	34,646	33,243
Mahoning.....	40,024	7,244	7,380	6,292	6,659	8,062	8,003	7,123	7,059	7,487
Marion.....	30,654	34,444	32,785	28,678	26,781	30,132	30,540	22,541	27,003	29,900
Medina.....	3,254	7,933	8,613	7,048	7,233	8,543	9,959	8,303	9,173	11,075
Melgs.....	3,123	3,199	3,617	2,114	1,760	2,636	2,413	1,910	2,276	3,272
Mercer.....	28,632	29,156	27,860	25,529	26,185	31,555	32,234	23,805	25,066	27,180
Miami.....	19,440	19,251	14,187	14,187	19,465	19,236	18,145	14,885	13,913	20,060
Monroe.....	24,549	4,261	5,055	4,587	3,667	4,049	5,637	4,004	4,304	6,202
Monroeville.....	24,716	23,658	23,094	19,671	20,979	23,456	23,865	20,038	21,598	23,584
Morgan.....	4,225	3,584	3,573	10,833	17,284	4,108	3,982	3,769	3,753	4,998
Morrow.....	14,901	13,905	12,556	10,694	11,060	13,386	13,568	9,728	12,173	16,843
Muskingum.....	8,423	9,257	9,249	7,957	7,469	10,469	10,578	8,729	9,869	11,142
Noble.....	5,426	4,923	4,749	3,907	3,367	5,435	5,049	5,079	4,362	6,072
Ottawa.....	11,759	13,057	6,768	8,032	8,415	11,279	11,034	9,205	7,909	8,089
Perry.....	10,121	9,137	12,176	8,643	7,523	10,043	9,758	11,634	10,816	8,331
Pickaway.....	28,197	31,642	33,509	27,180	31,286	38,730	33,246	25,420	26,869	24,644
Pike.....	6,927	5,368	6,724	4,928	5,634	8,163	7,166	5,741	5,778	6,573
Portage.....	5,925	6,571	7,123	5,726	6,034	7,212	6,694	6,249	6,850	8,085
Preble.....	35,780	38,868	39,194	39,098	31,317	39,979	37,395	29,095	30,869	33,080
Putnam.....	30,610	31,680	29,836	25,145	25,111	32,472	34,823	28,216	31,409	30,199
Ritchland.....	18,705	18,700	18,311	16,265	17,197	20,230	19,378	17,161	18,763	23,617
Ross.....	27,502	28,744	30,902	25,928	29,211	30,481	32,532	23,852	25,372	26,372
Sandusky.....	14,699	22,214	18,268	15,538	17,646	21,673	19,666	17,322	22,084	19,872
Scioto.....	6,389	6,618	6,943	5,371	5,747	6,887	7,121	6,038	6,251	7,377
Seneca.....	30,119	33,236	29,608	24,908	23,775	33,725	33,693	28,890	32,238	29,925
Shelby.....	20,772	17,709	19,730	15,650	18,855	20,168	24,052	15,355	17,133	19,803
Stark.....	15,177	17,479	18,565	15,981	16,941	22,326	20,352	17,353	16,707	21,988
Summit.....	5,639	6,587	7,820	7,152	6,700	9,227	9,184	7,412	7,967	9,300
Trumbull.....	5,840	6,587	7,256	5,671	6,025	6,264	5,965	5,378	6,259	6,796
Tuscarawas.....	11,570	12,410	10,306	8,913	8,913	11,654	12,405	10,909	11,170	11,612
Union.....	28,691	31,371	34,441	30,260	29,344	34,615	34,615	24,029	28,386	32,119
Van Wert.....	19,062	23,987	20,612	17,717	17,688	26,906	27,842	22,747	23,653	24,986
Vinton.....	2,467	2,459	1,906	1,885	1,738	2,631	2,258	1,666	1,729	2,109
Warren.....	20,789	24,827	26,486	18,308	20,896	26,672	23,961	19,852	19,281	20,226
Washington.....	5,596	5,399	4,431	4,431	4,006	5,726	3,882	5,026	5,026	6,623
Wayne.....	22,336	22,527	22,527	19,199	20,285	24,168	23,763	19,692	22,529	27,830
Williams.....	24,115	20,567	20,567	14,023	12,384	22,067	23,086	18,039	21,088	23,768
Wood.....	33,197	37,908	29,227	23,151	26,770	31,795	30,086	26,475	32,066	31,460
Wyandot.....	27,788	29,424	27,071	23,202	25,012	27,739	28,652	23,543	25,229	29,062
Totals.....	1,512,875	1,569,563	1,555,354	1,283,903	1,320,755	1,652,589	1,620,723	1,295,413	1,404,185	1,536,308

ABSTRACTS FROM REPORTS OF COUNTY AGRICULTURAL SOCIETIES FOR 1913.

TABLE 1—OFFICERS OF COUNTY FAIRS IN OHIO FOR 1913.

County.	President.	Postoffice.	Treasurer.	Postoffice.
Adams.....	O. C. Robuck.....	West Union.....	J. O. McManis.....	West Union.
Allen.....	John W. Shanahan.....	Lima.....	James L. Heath.....	Lima.
Ashtabula.....	E. E. Cook.....	Geneva, R. F. D.....	C. C. Babcock.....	Jefferson.
Athens.....	J. C. Harner.....	Athens, R. F. D. No. 1.....	E. R. Walker.....	Athens.
Auglaize.....	Daniel Hull.....	New Hampshire.....	J. T. Van Horn.....	New Hampshire.
Belmont.....	E. N. Boggs.....	Barton.....	Otto Giffin.....	St. Clairsville.
Brown.....	W. N. West.....	Ripley.....	B. M. Marshall.....	Georgetown.
Butler.....	A. Slade.....	Hamilton, R. F. D. No. 3.....	W. B. Wallace.....	Oxford.
Carroll.....	V. G. Stoddy.....	Carrollton.....	R. M. Moore.....	Carrollton.
Champaign.....	C. H. Ganson.....	Urbana.....	H. P. Wilson.....	Urbana.
Clark.....	J. S. Nicklin.....	Springfield, R. F. D. No. 10.....	C. S. Hatfield.....	Springfield, R. F. D. No. 4.
Clermont.....	C. S. Nichols.....	New Richmond.....	John B. Rapp.....	Owensville.
Clinton.....	I. R. Ross.....	Blanchester.....	Alex. Crosson.....	Blanchester.
Columbiana.....	F. W. Bye.....	Negley.....	I. M. Le Van.....	Columbiana.
Coshocton.....	Chas. McClain.....	West Lafayette.....	W. M. Smith.....	Coshocton.
Crawford.....	J. W. Stuckman.....	Bucyrus.....	Geo. W. Miller.....	Bucyrus.
Cuyahoga—East.....	R. L. Palmer.....	Cleveland.....	F. G. Leach.....	Chagrin Falls.
Cuyahoga—West.....	W. G. Hutchinson.....	Berea, R. D.....	W. D. Gardner.....	Berea, R. D.
Darke.....	M. L. Weisenberger.....	Arcanum.....	Ed. Ammon.....	Gordon.
Defiance.....	C. M. Rogers.....	Mark Center.....	Geo. B. Wilderson.....	Hicksville.
Delaware.....	W. H. Fisher.....	Powell.....	Arch Richards.....	Powell.
Erie.....	W. P. Scheid.....	Huron, R. F. D.....	John Quinn.....	Sandusky.
Fayette.....	George L. Trimmer.....	Lancaster, R. F. D.....	C. B. Whaley.....	Lancaster.
Franklin.....	Howard Hegler.....	Washington C. H.....	J. M. Willis.....	Washington C. H.
Fulton.....	T. H. Fraker.....	Delta.....	C. A. Knapp.....	Delta.
Gallia.....	John A. Iron.....	Northup.....	Homer Kerr.....	Gallipolis.
Geauga.....	W. H. Miller.....	Chardon.....	Frank Nelson.....	Burton.
Greene.....	R. D. Williamson.....	Xenia.....	C. M. Austin.....	Bellbrook.
Guernsey.....	I. R. Smith.....	Bysville.....	R. S. Frame.....	Washington.
Hamilton.....	E. M. Armstrong.....	Newton.....	W. H. Settle.....	Madisonville.
Hancock.....	Grant Thomas.....	Findlay.....	A. L. Miller.....	Findlay.
Hardin.....	Isaac Draper.....	Kenton.....	S. A. McCullough.....	Kenton.
Harrison.....	S. A. Porter.....	Cadiz, R. F. D. No. 7.....	C. E. Stewart.....	Cadiz.
Henry.....	John H. Lowry.....	Florida.....	Charles Bowers.....	Napoleon.
Highland.....	J. G. Redkey.....	Hillsboro, R. F. D. No. 4.....	I. B. Davis.....	Bainbridge, R. F. D. No. 2
Hocking.....	John F. White.....	Logan.....	F. W. Weiland.....	Logan.
Jackson.....	J. A. Cochran.....	Jackson.....	John S. Wilson.....	Coatton.
Jefferson.....	John L. Wilday.....	Smithfield.....	J. W. Polen.....	Smithfield.
Knox.....	M. T. Gaines.....	Danville.....	J. G. Simpson.....	Howard.

Lake.....	Painesville.....	E. D. Barber.....	Painesville.....
Lawrence.....	Proctorville.....	A. E. Smith.....	Proctorville.....
Licking.....	Johnstown.....	G. W. Horton.....	Newark.....
Logan.....	West Mansfield.....	Geo. T. Brandon.....	Bellevue.....
Lorain.....	Oberlin.....	H. M. Andress.....	Elyria.....
Lucas.....	Toledo.....	C. K. Bowen.....	Toledo.....
Madison.....	London, R. F. D.....	Geo. Langen.....	London, R. F. D.....
Mahoning.....	North Jackson.....	W. J. Dickson.....	Carefield.....
Marion.....	Agosta, R. F. D. No. 1.....	W. H. Holverstott.....	Marion.....
Medina.....	Medina.....	W. C. Smith.....	Medina.....
Meigs.....	H. S. Orr.....	A. D. Russell.....	Pomeroy.....
Mercer.....	W. N. Townsend.....	H. A. Beckman.....	St. Henry.....
Miami.....	Sol. Stock.....	J. H. Miller.....	West Milton.....
Monroe.....	Geo. A. Fry.....	W. C. Mooney.....	Woodfield.....
Montgomery.....	H. V. Hendrickson.....	A. W. Kiepinger.....	Clayton, R. No. 1.....
Morgan.....	F. M. Reed.....	J. W. Carter.....	McConnelsville.....
Morrow.....	J. E. Dairymple.....	J. G. Russell.....	Mt. Pleasant.....
Muskingum.....	F. M. Fleming.....	A. C. Vest.....	Zanesville, R. F. D. No. 6.....
Noble.....	John McWilliams.....	A. C. Fogle.....	Caldwell, R. F. D. No. 1.....
Paulding.....	C. J. De Long.....	Wm. Russell.....	Paulding.....
Perry.....	John Meenan.....	Wm. A. Allen.....	New Lexington.....
Pike.....	F. M. Hays.....	T. S. Rittenour.....	Pike.....
Portage.....	D. R. Hanna.....	F. H. Carnahan.....	Ravenna.....
Preble.....	I. G. Hawley.....	C. F. Brooke.....	Eaton.....
Putnam.....	Wm. Schlagbaum.....	Sam. Cartwright.....	Ottawa, R. F. D.....
Richland.....	J. M. Hunter.....	B. E. Kuhn.....	Chillicothe.....
Ross.....	Jacob S. Caldwell.....	Milton J. Scott.....	Fremont.....
Sandusky.....	O. L. Smith.....	Geo. W. Haynes.....	Lucasville.....
Scioto.....	L. Taylor.....	J. W. Spriggs.....	Lucasville.....
Seneca.....	Silas W. Rohrer.....	Frank M. Deam.....	Sidney.....
Shelby.....	George Hagelberger.....	Henry A. Wise.....	Canton.....
Stark.....	I. Snyder.....	M. L. Sprinkle.....	Bath.....
Summit.....	C. C. McCue.....	M. L. Hyde.....	Warren.....
Tumbull.....	Albert Brown.....	C. H. Horn.....	Canal Dover.....
Tuscarawas.....	S. B. McGuire.....	H. E. Moore.....	Marysville.....
Union.....	K. Langstaff.....	E. B. Gilliland.....	Van Wert.....
Van Wert.....	J. W. Nicodemus.....	W. Z. Roll.....	Lebanon.....
Warren.....	S. L. Irons.....	J. W. Dysle.....	Marietta.....
Washington.....	J. L. Jordan.....	W. A. Wilson.....	Wooster.....
Wayne.....	J. C. Case.....	Chas. A. Fyke.....	Bryan.....
Williams.....	P. M. Money.....	J. D. Halsey.....	Bowling Green.....
Wood.....	James Lundy.....	D. A. Bloom.....	Sycamore.....
Wyandot.....	G. W. Beis.....		

OFFICERS OF COUNTY FAIRS IN OHIO FOR 1913 WITH TIME AND PLACE.

County.	Secretary.	Postoffice.	Time of Fair.	Place of Fair.
Adams.....	T. W. Ellison.....	West Union.....	Sept. 9-10-11-12.....	West Union.
Allen.....	C. A. Graham.....	Lima.....	Sept. 16-17-18-19.....	Lima.
Ashtabula.....	Chas. R. Sargent.....	Jefferson.....	Aug. 19-20-21-22.....	Jefferson.
Athens.....	H. H. Haning.....	Athens.....	Sept. 16-17-18-19-20.....	Athens.
Auglaize.....	A. E. Schaffer.....	Wapakoneta.....	Aug. 26-27-28-29.....	Wapakoneta.
Belmont.....	I. H. Taylor.....	Marion Ferry.....	Sept. 16-17-18.....	St. Clairsville.
Brown.....	C. Lewis Richey.....	Georgetown.....	Sept. 30, Oct. 1-2-3.....	Georgetown.
Butler.....	C. A. Kunkler.....	Hamilton.....	Sept. 30, Oct. 1-2-3.....	Hamilton.
Carroll.....	P. B. Roubush.....	Carrollton.....	Oct. 7, 8, 9-10.....	Carrollton.
Champaign.....	I. W. Crowl.....	Urbana.....	Oct. 12-13-14-15.....	Urbana.
Clark.....	Elwood Miller.....	Springfield.....	Aug. 19-20-21-22.....	Springfield.
Cleont.....	J. E. Christy.....	Willinsburg.....	Aug. 19-20-21-22.....	Owensville.
Clinton.....	E. A. Brown.....	Blanchester.....	Aug. 26-27-28-29.....	Blanchester.
Columbiana.....	O. W. Moore.....	Lisbon.....	Sept. 15-16-17.....	Lisbon.
Coshocton.....	W. B. Miller.....	Coshocton.....	Sept. 15-16-17.....	Coshocton.
Crawford.....	I. I. Smith.....	Bucyrus.....	Sept. 9-10-11-12.....	Bucyrus.
Cuyahoga—East.....	F. C. Gates.....	Chagrin Falls.....	Sept. 9-10-11.....	Chagrin Falls.
Cuyahoga—West.....	L. M. Owe.....	Berea.....	Sept. 9-10-11.....	Berea.
Darke.....	Fred. Pfessinger.....	Greenville.....	Aug. 25-26-27-28-29.....	Greenville.
Defiance.....	I. E. Mercer.....	Hicksville.....	Sept. 16-17-18-19-20.....	Hicksville.
Delaware.....	B. E. Neff.....	Powell.....	Sept. 16-17-18-19.....	Powell.
Erie.....	P. H. Zerbe.....	Sandusky.....	Sept. 8-9-10-11-12.....	Sandusky.
Fairfield.....	W. T. McClenaghan.....	Lancaster.....	Oct. 15-16-17-18.....	Lancaster.
Payette.....	W. B. Rogers.....	Washington C. H.....	Aug. 12-13-14-15.....	Washington C. H.
Franklin.....	.....	.....	.....	.....
Fulton.....	E. P. Ames.....	Wauseon.....	Sept. 15-16-17-18-19.....	Wauseon.
Galia.....	A. C. Safford.....	Gallipolis.....	Aug. 27-28-29.....	Gallipolis.
Geauga.....	W. S. Ford.....	Burton.....	Sept. 9-10-11-12.....	Burton.
Green.....	R. K. Grieve.....	Xenia.....	Aug. 6-7-8-9.....	Xenia.
Guernsey.....	R. C. McCreary.....	Washington.....	Sept. 23-24-25-26.....	Washington.
Hamilton.....	D. L. Sampson.....	Room 30, Wiggins Block, Cincinnati.....	.....	.....
Hancock.....	A. G. Burson.....	Mt. Blanchard.....	Aug. 13-14-15-16.....	Carthage.
Hardin.....	F. U. Jones.....	Kenton.....	Oct. 1-2-3-4.....	Findlay.
Harrison.....	J. H. Livingston.....	Kenton.....	Aug. 26-27-28-29.....	Kenton.
Henry.....	A. F. Tabler.....	Cadiz.....	Oct. 1-2-3.....	Cadiz.
Highland.....	Leslie George.....	Napoleon.....	Sept. 2-3-4-5.....	Napoleon.
Hocking.....	E. B. Allen.....	Greenfield, R. F. D. No. 4.....	Oct. 6-7-8-9.....	Rainsboro.
Hocking.....	G. W. Harbarger.....	Logan.....	Oct. 1-2-3-4.....	Logan.
Jackson.....	Chas. Gallrath.....	Jackson.....	Aug. 13-14-15.....	Wellston.
Jefferson.....	Howard C. Gates.....	Smithfield.....	Sept. 23-24-25.....	Smithfield.
Knox.....	Sam. Low.....	Mt. Vernon.....	Sept. 23-24-25-26.....	Mt. Vernon.
Lake.....	H. W. Ash.....	Willoughby.....	Sept. 16-17-18-19.....	Painesville.
Lawrence.....	.....	Proctorville.....	Aug. 19-20-21-22.....	Proctorville.
Licking.....	J. M. Farmer.....	Newark.....	Sept. 30, Oct. 1-2-3.....	Newark.

Logan.....	I. S. Winner.....	Belleville.....	Aug. 19-20-21-22.....	Belleville.....
Loran.....	Anthony Nikling.....	Elyria.....	Sept. 18-17-18-19.....	Elyria.....
Lucas.....	C. R. Bowen.....	Toledo.....	Sept. 8-9-10-11-12.....	Toledo.....
Madison.....	Lamar P. Wilson.....	London.....	Aug. 26-27-28-29.....	London.....
Makoning.....	M. E. Rowman.....	Salem.....	Sept. 9-10-11-12.....	Canfield.....
Marion.....	Roscoe Oborn.....	Marion.....	Sept. 23-24-25-26-27.....	Marion.....
Medina.....	O. O. Van Dusen.....	Medina.....	Sept. 2-3-4.....	Medina.....
Meigs.....	Jas. M. Lyman.....	Pomeroy.....	Sept. 3-4-5.....	Rock Springs.....
Mercer.....	S. J. Vining.....	Celina.....	Aug. 18-19-20-21-22.....	Troy.....
Miami.....	C. D. Martin.....	Woodsfield.....	Aug. 15-16-17-18-19.....	Woodsfield.....
Monroe.....	Geo. P. Dorr.....	Dayton, No. 603, Reibold Bldg.....	Aug. 19-20-21.....	Dayton.....
Montgomery.....	I. L. Holderman.....	McConnelsville.....	Aug. 1-2-3-4-5.....	McConnelsville.....
Morgan.....	J. E. Torbert.....	Mt. Gilead.....	Aug. 15.....	Mt. Gilead.....
Morrow.....	O. J. Miller.....	Zanesville.....	Sept. 30, Oct. 1-2-3.....	Zanesville.....
Muskingum.....	R. W. Matheny.....	Caldwell, R. F. D. No. 1.....	Aug. 12-13-14-15.....	Sarahsville.....
Noble.....	W. B. Jackson.....	Paulding.....	Sept. 1-2-3-4-5.....	Paulding.....
Paulding.....	Chas. C. Chapplear.....	New Lexington.....	Sept. 24-25-26.....	New Lexington.....
Perry.....	S. S. Daily.....	Piketon.....	Aug. 6-7-8.....	Piketon.....
Pike.....	C. R. Sharps.....	Ravenna.....	Sept. 2-3-4-5.....	Ravenna.....
Portage.....	Harry D. Silver.....	Eaton.....	Sept. 22-23-24-25-26.....	Eaton.....
Preble.....	A. P. Sandles.....	Ottawa.....	Oct. 7-8-9-10-11.....	Ottawa.....
Putnam.....	W. H. Shryock.....	Mansfield.....	Aug. 25-26-27-28.....	Mansfield.....
Richland.....	Addison P. Minshall.....	Chillicothe.....	Aug. 19-20-21-22.....	Chillicothe.....
Ross.....	C. A. Hockenedel.....	Premont.....	Sept. 16-17-18-19.....	Premont.....
Sandusky.....	J. H. Rockwell.....	Lucasville.....	Aug. 12-13-14-15.....	Lucasville.....
Seneca.....	Morgan E. Ink.....	Republic.....	Sept. 3-4-5.....	Tiffin.....
Shelby.....	J. E. Russell.....	Sidney.....	Sept. 9-10-11-12.....	Sidney.....
Stark.....	Ed. S. Wilson.....	Canton.....	Sept. 24-25-26-27.....	Canton.....
Summit.....	O. J. Swinehart.....	Akron.....	Sept. 30, Oct. 1-2-3-4.....	Warren.....
Tremont.....	Horner C. Mackey.....	Warren.....	Sept. 2-3-4.....	Warren.....
Tuscarawas.....	I. S. Karns.....	Canal Dover.....	Oct. 14-15-16-17.....	Canal Dover.....
Union.....	W. F. Brodick.....	Marysville.....	Sept. 9-10-11-12.....	Marysville.....
Van Wert.....	E. V. Walborn.....	Van Wert.....	Sept. 8-9-10-11-12.....	Van Wert.....
Warren.....	Phillip Spence.....	Lebanon.....	Sept. 9-10-11-12.....	Lebanon.....
Washington.....	L. E. Apple.....	Marietta.....	Sept. 17-18-19.....	Marietta.....
Wayne.....	G. J. Bright.....	Shreve.....	Oct. 7-8-9.....	Wooster.....
Williams.....	Robert Ogte.....	Montpelier.....	Sept. 9-10-11-12-13.....	Montpelier.....
Wood.....	R. S. Sweet.....	Bowling Green.....	Sept. 22-23-24-25-26.....	Bowling Green.....
Wyandot.....	J. T. Longabaugh.....	Upper Sandusky.....	Sept. 16-17-18-19.....	Upper Sandusky.....

TABLE II—ENTRIES AND AWARDS.

Counties.	HORSES.																	Total Amount Premiums Of- fered.	Total Amount Awarded.
	Roadsters, Standard.	Roadsters, Non-Standard.	American Car- riage Horses.	French Coach.	German Coach.	Belgian.	Percherons.	Clydesdales and Shires.	American Bred Draft.	Grade Draft.	Hackneys.	Saddle Horses.	Harness Classes.	Other Breeds.	Shetland Ponies.	Other than Shet- land Ponies.	Total Number Entries.		
Alams.....	15	10	11	6	7	5	26	14	20	26			5	139	27		165	\$742 00	\$503 00
Allen.....			12		2					12				14	31	11	172	853 00	468 00
Ashtabula.....										24					77	74	151	557 00	203 00
Athens.....																		371 00	244 00
Auglaize.....	1									15		2	28				65	402 50	215 65
Belmont.....	59		16	16		3	14		13	47	55		72	50		2	328	856 00	656 00
Brown.....											2		9	142			202	1,120 00	774 90
Butler.....										66			30	55	16		211	440 00	333 00
Carroll.....																		290 00	200 00
Champaign.....	16	49	32		40		18	13	24	55		3	20	22	12	4	172	405 00	290 00
Clark.....		36								71			38	32	14	5	203	714 00	652 80
Clermont.....	38									15			11	11			124	595 00	533 00
Columbiana.....										22		6	40	12			171	343 00	321 00
Coshocton.....	12	29	21			14	23	23		42		3		86	31		177	573 00	332 00
Crawford.....	10	15		11		2	24		10	41				17	9		170	1,088 00	659 00
Cuyahoga.....														10	3		126	899 00	430 00
Darke.....	18	44				26	17	1		65		3		64	27		265	1,419 00	810 35
Defiance.....	6	12				9	15	2		35							81	546 00	241 50
Delaware.....	2	21					3		3			4			13	1	48	631 00	158 00
Erie.....	8		26		4					12		5	22	1			50	566 00	179 50
Fairfield.....	5	2	60			24	29	2	42	24				6	1		285	958 00	796 00
Fulton.....	9	21	1			4	16			43		2	8	10			60	836 00	262 00
Gallia.....	8	30	10							29				25	10		94	367 00	130 00
Geauga.....																	112	336 50	195 00
Greene.....	5	25					12			32		1		36	6		145	679 00	539 00
Guernsey.....												32					117	449 00	361 00
Hamilton.....	84									11		32	262	71			485	1,398 50	1,285 00
Hancock.....		18		1		4	20			47		4		26	6		130	857 00	427 00
Hardin.....	3	7	3				22			39				6			98	484 00	237 00
Harrison.....						1	7			31				21	10		76	284 00	134 00
Henry.....	2	3				25	31	4	25	23				94	2		182	927 00	463 00
Highland.....	22	8		24										34	4		115	502 50	411 30
Hocking.....	6	17							6	10			5	11	4		59	550 00	296 00

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TABLE II—ENTRIES AND AWARDS—Continued.

Counties.	CATTLE.															Total Amount Premiums Awarded.		
	Shortorns.	Aberdeen Angus.	Hereford.	Polled Durhams.	Galloways.	Jerseys.	Holsteins.	Red Polls.	Guernseys.	Ayrshires.	Devons.	Brown Swiss.	Fat Cattle.	Other Breeds.	Total Number of Entries.		Total Amount Premiums Offered.	
Adams.....	27	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	70	\$187 00	\$163 00
Allen.....	5	10	9	10	10	14	12	11	14	14	13	12	7	10	17	72	979 00	251 00
Ashtabula.....	18	15	8	8	14	19	19	19	10	10	13	12	7	26	26	126	690 00	486 00
Athens.....	3														11	60	265 00	171 00
Auglaize.....																		
Belmont.....																		
Brown.....	13		12	12	12	7	8							1	20	437 50	65 50	182 50
Butler.....	11		10	2	2	42	29	42						5	10	90	326 25	410 40
Carroll.....	9		8	8	8	21	13	9							157	584 00	249 00	211 00
Champaign.....	28		15	15	15	15	23	23	8						58	415 00	504 00	179 00
Clark.....	13	11	12	11	11	25	25	25							122	1,111 00	156 00	833 00
Clermont.....	10	11				18	25	16	36	22	14			23	64	290 00	310 00	262 00
Columbiana.....	15	1				20	15	20							103	434 00	1,241 00	833 00
Coshocton.....	25	19	20	12	12	21	25	21						6	52	163 00	503 00	235 00
Crawford.....	17		8	7	7	1	13											
Cuyahoga.....																		
Darke.....	11		9	3	3	29	29	29	12					1	93	1,130 00	426 70	78 50
Defiance.....						11	9	9							21	146 50	24 00	123 00
Delaware.....	1						7	2							10	335 00	718 00	166 00
Erie.....	13					13	2	11	13	14	13		17		35	210 00	190 00	253 50
Fairfield.....	18	25	33	10	10	36	11	13						9	34	580 00	349 00	221 00
Fulton.....	6					6	13	13	8						48	233 00	660 00	546 50
Gallia.....	8					21	9	9	8	43					192	702 00	396 00	119 00
Geauga.....						36	112	15			1			39	126	690 00	330 00	145 00
Greene.....	5		20		17	30	15	10						16	116	660 00	469 00	119 00
Guernsey.....	20	15	6			7	10								58	690 00	330 00	145 00
Hamilton.....	14		10	27		37		12	3						36	469 00	330 00	145 00
Hancock.....						23		8	9						59	330 00	372 00	90 00
Hardin.....	28		9		10	14									31	372 00	960 00	272 00
Harrison.....	22								9	1					72	960 00	529 00	164 50
Henry.....	10					28	18	14	14						44			
Highland.....	16		8			18								2	2			

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Hocking	3	11	7	13	2	9	45	234 00	188 00
Jackson	9	8	2	9		10	49	60 00	4 00
Jefferson		10	8	18			36	202 00	130 80
Knox	51	16	8	8	7	4	94	313 00	99 00
Lake	17	3	5				8	440 00	173 00
Lawrence	16	34					138	172 00	27 00
Licking	17	7	19	32	13	26	92	560 00	354 00
Lorain	16	12	7	32	3	28	56	227 50	189 50
Lucas	16	35	3	16	6	19	123	269 00	140 50
Madison	20	18	16	29	27		110	656 00	317 00
Mahoning	18	13	7	15			68	480 00	184 00
Marion	19	18	61	67	20		183	224 00	290 00
Medina	19	28	16	20	8	10	107	450 00	163 50
Meigs	4	10	4	8	6	6	32	278 50	60 00
Mercer						106	106	465 50	230 50
Miami	10	22	12	16	6		74	750 00	410 00
Monroe	7	1	11	2			21	352 00	83 00
Montgomery									
Morgan	15		10	13		26	63	251 00	188 00
Morrow	23	24	18	2	24	3	116	490 00	240 00
Muskingum					23		3	23 50	4 00
Noble		23	16				39	317 00	96 50
Paulding		13	6				25	110 25	53 00
Perry	7						8	111 00	14 00
Pike									
Portage	22	25	45	2	16		110	375 00	237 00
Preble	25	16	49	19		26	146	450 00	424 00
Putnam	15	11	11	21		13	55	220 00	170 00
Richland	13						45	230 00	169 00
Sandusky	19	38	23	24	22	28	153	337 00	363 00
Scioto		10	5	2			45	451 00	362 00
Seneca	22	15	19	26			17	218 00	64 50
Shelby	14	32	22	40		27	85	340 00	260 00
Stark	12	19	23	10	15		150	378 00	268 50
Summit						12	76	380 00	238 00
Tribune	13	10	6	19	1		49	384 00	160 00
Tuscarawas	11	5	7		8	4	35	196 00	141 00
Union							18	98 00	98 00
Van Wert	35	33	30	38	26	9	171	594 00	485 00
Warren	18	16					81	221 00	64 00
Washington			3				6	332 00	94 00
Wayne	14	21	6	21	9	15	89	481 00	367 00
Williams	12	29	20	30	12		95	292 00	190 50
Wood	16	25	12	16	9	18	129	445 00	337 00
Wyandot	15	11	9		30		30	192 00	136 00

TABLE II—ENTRIES AND AWARDS—Continued.

Counties.	SHEEP.												Total Number of Entries.	Total Amount Offered. Premiums	Total Amount Awarded. Premiums
	Merinos.	French Merinos.	Coltswolds.	Oxford Downs.	Shropshire Downs.	Hampshire Downs.	South Downs.	Lincolns.	Dorsets.	Cherlocks.	Fat Sheep.	Other Breeds.			
Adams.	6	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	13	\$36 00	\$36 00
Allen.	107	32	28	24	41	28	7					24	304	576 00	427 00
Ashtabula.			20	13	29	30	12		23	17		44	65	280 00	232 00
Athens.													44	82 00	78 00
Auglaize.		12							4	24		15	85	218 00	218 00
Belmont.	24		12	14	17	13	13	6					66	198 00	155 50
Brown.	10		14	13	15	13	19	28	14			21	151	459 00	413 10
Butler.	14	15	12	12	14	20	12		18	30			175	440 00	440 00
Carroll.	42	15	12	12	15	26	26	13	13	10			239	408 00	353 00
Champaign.	93	10	22	26	26	15	34	36	21	24		44	328	440 00	390 80
Clark.	37	20	26	26	39	13	8		8			7	50	180 00	168 00
Clermont.	6		8	13	13	6	6		11			6	42	134 00	108 00
Clinton.	6	4	12	13	16	13	22		10			18	81	244 00	190 00
Columbiana.	4		12	12	12	14	15	23	6	8		19	171	676 00	606 00
Coshocton.	55	18			41				9			105	105	256 00	144 00
Crawford.	18														
Cuyahoga.															
Darke.	14	21	23		13	14	20	14	8	11		14	152	539 00	422 60
Defiance.	12				12	12	3	6				12	69	216 00	173 00
Delaware.					3							5	8	90 00	110 75
Erie.	6	13			12	12	4				12		59	117 00	85 00
Fairfield.	24	25	12	23	14	12	15	24	24	38		15	226	418 00	418 00
Fulton.	24	21			9	12	15					25	80	369 00	109 50
Gallia.			3		17	7	21	5	5			4	45	90 00	53 00
Geauga.	19			7	4	7	5				3	28	83	229 50	162 00
Greene.	22	16		12	12	12	24	12	12	12		16	150	318 00	318 00
Guernsey.	20				23	14		14					57	280 00	160 00
Hamilton.	13			13	13	14	38	12	13	13		26	155	385 00	343 50
Hancock.	86				69			9				39	203	352 00	300 00
Hardin.	20	20			24							14	78	256 00	128 00
Harrison.	48	14	14		20				20		2		118	240 00	233 00
Henry.	9	19		12	20	12	12		9			35	134	330 00	291 00
Highland.			11	9	15		12					10	57	350 00	157 00

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TABLE II—ENTRIES AND AWARDS—Continued.

Counties.	HORSES—SPEED.			POULTRY.		
	Total Number Entries.	Total Amount Premiums Offered.	Total Amount Premiums Awarded.	Total Number Entries.	Total Amount Premiums Offered.	Total Amount Premiums Awarded.
Adams.....						\$113 25
Allen.....	83	\$4,600 00	\$3,000 00	326	\$125 00	171 00
Ashtabula.....		3,200 00	3,157 50	601	345 75	707 60
Athens.....	36	2,510 00	1,572 50	1,536		7 50
Auglaize.....						
Belmont.....	39	1 700 00		64	349 25	27 25
Brown.....				735	244 50	155 50
Butler.....	180	4,800 00	3,820 00	1,368	429 50	354 70
Carroll.....		1,400 00	1,300 00	76	85 00	22 00
Champaign.....	143	2,730 00	2,730 00	221	202 00	114 00
Clark.....	55	2,900 00	2,236 00	1,164	414 39	348 00
Clermont.....	33	1,300 00	1,200 00	1,136	89 75	57 50
Clinton.....	90	1,600 00	1,000 00	112	49 75	47 75
Columbiana.....	27	1,600 00	1,540 00	138	154 00	41 00
Coshocton.....	86	3,000 00	2,100 00	1,479	623 00	562 05
Crawford.....	32	2,500 00	1,990 00	771	686 05	519 35
Cuyahoga.....						
Darke.....	97	4,200 00	3,115 00	1,642	439 15	341 10
Defiance.....				583	225 50	181 35
Delaware.....	18	450 00	435 65	105	95 05	43 00
Erie.....	49	2,650 00	2,650 00	200	213 00	107 50
Fairfield.....	186	3,030 00	3,050 00	1,223	488 50	475 00
Fulton.....				200	125 00	125 00
Gallia.....		1,694 00	1,214 00			
Geauga.....	36	2,000 00	1,430 00	537	307 50	162 25
Greene.....	67	2,700 00	2,700 00	1,019	420 00	367 75
Guernsey.....	30	1,600 00	1,147 50	45	145 00	18 75
Hamilton.....	127	3,994 50	3,862 00	1,200	514 50	450 00
Hancock.....	90	2,400 00	2,400 00	1,772	1,030 00	646 00
Hardin.....	60		1,140 00	441	474 50	207 25
Harrison.....	37	1,050 00	400 00	430	282 60	77 10
Henry.....	118	3,350 00	2,482 50	335	600 00	162 75
Highland.....	95	1,350 00	1,038 75	275	179 25	105 15
Hocking.....	59	2,675 00	2,081 25	94	75 00	67 30
Jackson.....	30	2,040 00	1,427 14	142	75 00	62 05
Jefferson.....			1,560 00	342	369 75	105 15
Knox.....	90	2,500 00	1,850 00	257	897 00	116 50
Lake.....	72	3,250 00	2,322 50		467 50	285 25
Lawrence.....	28	2,000 00	2,000 00	16	150 00	16 50
Licking.....	78	3,000 00	2,370 00	637	234 75	183 60

Logan.....	116	2,400 00	1,896 00	179	131 45	78 35
Loran.....	116	2,400 00	1,590 00	902		657 30
Lucas.....	195	7,200 00	5,260 00	321	360 00	153 25
Madison.....	35	3,600 00	3,600 00	370	450 50	205 00
Mahoning.....	139	2,200 00	2,200 00	893	394 90	258 75
Marion.....	46	4,600 00	3,550 00	1,150	472 25	301 15
Medina.....	25	2,400 00	1,410 00	655	553 00	286 95
Meigs.....	81	1,800 00	1,740 00	38	117 00	25 50
Mercer.....	71	3,725 00	2,620 00	878	349 25	275 75
Miami.....	142	3,500 00	2,760 00	388	480 00	389 50
Monroe.....		2,050 00	2,007 00	21	150 00	20 00
Montgomery.....						
Morgan.....	63	2,400 00	2,400 00	38	21 00	21 00
Morrow.....	109	2,800 00	2,095 00	886	660 00	539 00
Muskingum.....	5	400 00	135 00	1,329	945 00	376 65
Noble.....	81	2,600 00	1,837 50	8	108 00	6 00
Paulding.....	42	1,600 00	1,600 00	437	397 00	151 50
Perry.....	34	1,600 00	1,100 00	205	196 70	84 82
Pike.....	51		1,000 00	243	300 00	97 32
Portage.....	138	2,700 00	1,982 85	908	664 00	338 25
Preble.....	120	2,700 00	2,080 00	500		125 00
Putnam.....	26	1,900 00	2,460 00	244	143 00	140 00
Richland.....	41	3,300 00	1,900 00	397	312 50	133 00
Sandusky.....	58	1,230 00	2,536 00	1,046	875 00	682 50
Scioto.....	43	2,200 00	845 00	1,08	109 20	44 70
Seneca.....	54	2,800 00	1,820 00	496	525 00	291 00
Shelby.....			2,877 00	255	174 00	109 75
Stark.....			1,810 00	773	504 00	375 25
Summit.....						
Tribb.....	69	2,100 00	2,030 00	476	283 50	134 00
Tuscarawas.....	73	3,300 00	2,586 00	295	120 00	96 50
Union.....			2,447 50	432	124 60	69 80
Van Wert.....	164	3,555 00	3,450 00	1,469	498 00	399 00
Warren.....	142	2,250 00	1,520 00	223		116 25
Washington.....	11	600 00	450 00	43	580 00	11 50
Wayne.....	56	2,400 00	2,400 00	671	600 00	293 25
Williams.....	79	3,240 00	2,213 24	737	351 75	
Wood.....			4,563 00	1,742	1,581 00	1,295 85
Wyandot.....	16	1,625 00	758 45	354	160 00	127 75

TABLE II—ENTRIES AND AWARDS—Continued.

Counties.	Machinery and Agricultural Implements.				Manufactures.			
	Total Number Entries.	Total Amount Premiums Offered.	Total Amount Premiums Awarded.	Shop Ma- chinery.	Vehicles.	Total Number Entries.	Total Amount Premiums Offered.	Total Amount Premiums Awarded.
				Number.	Num- ber.			
Adams	14	\$50 00	\$30 00	16	23	23	\$14 00	\$7 00
Allen	6	28 50	3 75		10	26	98 00	33 00
Ashtabula	3	16 00	13 00	4	7	11		
Athens								
Auglaize	3	52 00	4 00					
Belmont								
Brown	3	75 00	67 50	9	1	10	42 50	
Butler	1	10 00	10 00		5	5	41 00	12 50
Carroll	2	15 00	10 00			8	30 00	18 00
Champaign	28		10 00				26 00	11 00
Clermont							15 00	16 00
Clinton								
Columbiana	5	28 00	28 00		14	14	5 00	5 00
Coshocton	14				16	16	20 50	28 50
Crawford					11	11	31 00	31 00
Cuyahoga					4	4	33 00	23 00
Deface								
Delance	7							
Delaware					5	5		
Erie								
Fairfield								
Fulton	40	133 00	92 50					
Gallia	3	30 00	30 00					
Geauga								
Greene	15	24 00						
Guernsey	2	75 00	65 00			2	32 00	
Hamilton	10	20 00	20 00	8	25	33	20 00	20 00
Hancock				4	8	12		
Hardin								
Harrison								
Henry								
Highland	19			9	6	15		
Hocking	85			12	42	54		
Jackson								
Jefferson				5	4	9		
Knox								

[illegible]

TABLE II—ENTRIES AND AWARDS—Continued.

Counties.	FARM PRODUCTS.										Total Amount Premiums Offered.	Total Amount Premiums Awarded.
	Grains and Seeds.	Vegetables.	Honey and Maple.	Preserves and Canned Goods.	Butter and Cheese.	Culinary.		Total Number Entries.				
						No.	No.					
Adams.....	53	69	2	211	4	67	406	\$103 75	\$95 25			
Allen.....	212	101	30	223	26	127	719	120 75	94 25			
Ash-bula.....	86	170	2	218	15	96	499	191 75	134 00			
Athens.....	44	45		88	5	18	244	157 50	81 00			
Auglaize.....	118	67	2	132	3	66	314	340 75	99 50			
Belmont.....	77	271	3	274	5	30	701	287 50	171 50			
Brown.....	97	76	10	441	10	143	757	352 00	282 60			
Butler.....	47	149		164	8	65	475	146 00	134 80			
Carroll.....	69	163	19	360	8	114	711	217 00	217 75			
Champaign.....	45	145		357	14	139	724	461 45	311 96			
Clark.....	76	120	8	169	3	203	548	261 85	114 15			
Clermont.....	79	104	3	297	8	73	564	107 25	103 25			
Columbia.....	57	148		124	85		414	160 00	151 00			
Coshocton.....	158	241		17	2	18	436	309 10	229 30			
Crawford.....	100	267		29		47	443	205 65	151 00			
Cuyahoga.....	152	243	13	576	9	158	1,151	472 00	318 66			
Darke.....	58	73		165	4	32	332	306 40	153 75			
Defiance.....	44	44	5	161	5		256	124 85	83 55			
Delaware.....	42	94		100		38	274	133 25	1 6 95			
Erie.....	147	203	8	205	189	33	785	608 00	563 00			
Fairfield.....	75	200		525	2	160	967	182 00	113 50			
Fulton.....	47	47		161	2	49	286	167 65	78 85			
Gallia.....	60	64	21	536	4	117	802	213 90	178 50			
Geauga.....	105	93	11	109	63	76	457	415 00	345 75			
Greene.....	80	140	4	240	6		47	130 00	75 00			
Guernsey.....	47	97	12	456		201	816	416 25	370 75			
Hamilton.....	107	85		149	4	76	423	377 00	314 00			
Hancock.....	7	45	8	18	1	8	79	73 25	33 75			
Hardin.....	33	28	2	288	7	29	161	48 20	20 90			
Harrison.....	46	64		288	1	44	443	299 25	136 00			
Henry.....	37	162	5	76	5	157	462	154 50	91 75			
Highland.....	62	58	2	125	6	15	268	75 00	38 00			
Hocking.....												

Jackson	13	12	3	5	6	39	82 25	20 25
Jefferson	25	30	135		100	290	131 40	93 10
Knox	26	44	3		52	204	192 05	95 30
Lake	82	234	19	2	110	1,063	351 25	300 50
Lawrence	30	33	235	29	86	399	461 00	240 10
Licking	98	178	181		62	519	464 25	386 25
Logan	48	71	318		91	528	244 05	159 50
Lorain	59	67	129	3	15	289	211 25	158 25
Lucas	78	40	21	3	44	193	826 25	467 50
Madison	69	52	214		47	398	583 00	423 50
Mahoning	28	140	148	3	88	420	278 85	224 45
Marion	264	377	278	40	126	1,089	335 75	318 50
Medina	28	66	105	4	26	233	94 70	69 40
Meigs	20	25	313	4	111	469	142 00	108 40
Mercer						366	144 25	88 50
Miami	142	288	340	74	100	1,022	390 00	316 00
Monroe	6	5	81			92	180 00	27 00
Montgomery								
Morgan								
Morrow		37	153	16	44	150	70 00	20 50
Muskingum	27	23	76		51	250	138 00	38 00
Noble	25	32	147	4		177	343 85	17 45
Paulding	65	79	224	4	40	210	138 75	75 75
Perry	13	43	50	4		415	253 00	168 00
Pike	17	20	11			112	228 25	78 00
Portage	82	151	104	6	61	50	93 50	12 00
Preble	72	258	490	7	230	408	268 80	158 00
Putnam	440		530	2	100	1,077	333 75	264 75
Richland		156	88			1,070	480 00	380 00
Sandusky	114	137	114	2	34	336	121 00	73 00
Scioto			97	9	12	399	240 00	173 50
Seneca	42	118	238	3	344	118	69 10	34 00
Shelby	100	46	244		63	760	218 00	207 50
Stark	131	190	148	20	28	453	184 00	118 00
Summit						531	222 00	160 15
Tuscarawas	75	116	298	7	50	558	330 25	147 25
Union	126	61	138	14		339	201 95	166 55
Van Wert	304	202	513	3	14	528	115 65	107 40
Warren	285	448	8		461	1,712	589 00	460 50
Washington	40	97	257	3	91	485	216 85	180 25
Wayne	2	25	74		6	107	135 00	62 25
Williams	93	113	122	3	64	395	170 20	141 95
Wood	59	120	351	4	70	605	205 00	442 25
Wyandot	231	310	288	104	32	933	470 75	57 60
	56	61	2	3		157	142 00	

TABLE II—ENTRIES AND AWARDS—Continued.

Counties.	Fruits and Flowers.			Woman's Work			Fine Arts.			Grange.		
	Total Number Entries.	Total Amount Offered.	Total Amount Premiums Awarded.	Total Number Entries.	Total Amount Offered.	Total Amount Premiums Awarded.	Total Number Entries.	Total Amount Offered.	Total Amount Premiums Awarded.	Total Number Entries.	Total Amount Offered.	Total Amount Premiums Awarded.
Adams.....	78	\$36 50	\$35 50	371	\$118 45	\$89 00	117	\$42 00	\$42 00	4	\$378 00	\$144 00
Allen.....	151	99 00	67 00	408	234 00	84 75	1,090	578 75	300 75			
Ashabula.....	258	104 10	57 70	404	152 00	115 75	145	163 95	92 90			
Athens.....	35	90 00	27 25	62	73 50	56 75	109	60 25	59 25			
Auglaize.....												
Belmont.....	178	99 50	49 50	531	202 50	100 25	150	66 75	33 50			
Brown.....	360	109 25	80 50	603	94 75	87 75	59	14 50	14 50			
Butler.....	202	114 50	90 00	944	233 50	118 10	376	137 50	132 30			
Carroll.....	318	86 00	80 00	410	118 50	113 25	28	21 75	18 50			
Champaign.....	512	187 00	132 25	587	257 25	213 50	167	138 50	98 75			
Clark.....	326	125 80	125 80	557	271 80	177 75	417	355 75	340 45			
Clermont.....	726	231 50	172 77	443	121 65	100 46	246	81 50	77 00			
Clinton.....	53	35 25	32 25	397	76 75	74 75	64	14 00	12 75			
Columbiana.....	354	124 00	121 00	162	73 00	72 00	75	41 00	40 00			
Coshocton.....	362	173 55	145 50	740	239 50	175 00	410	135 25	128 00	1	140 00	50 00
Crawford.....	272	169 50	115 75	1,037	332 25	268 00	366	159 50	149 75			
Cuyahoga.....												
Darke.....	365	195 00	132 75	1,019	243 75	182 20	470	183 00	154 00			
Defiance.....	102	173 75	90 50	650	364 60	204 00	84	80 00	35 60			
Delaware.....	62	52 50	12 00	69	84 00	25 00	12	30 75	6 00			
Erie.....	321	105 50	90 00	485	418 50	164 35	340	244 00	122 50			
Fairfield.....	363	365 00	325 00	430	212 00	203 50	371	319 00	297 00			
Fulton.....	200	160 00	70 25	1,200	525 00	322 95	800	625 00	299 00			
Gallia.....	62	73 25	35 10	258	98 00	75 00	70	26 50	23 50			
Geauga.....	344	164 30	96 25	1,263	265 60	215 95	144	124 00	48 50			
Greene.....	121	135 00	119 00	207	140 00	97 50	352	175 00	162 50			
Guernsey.....	265	140 00	103 00	537	137 54	60 50	30	32 00	12 00			
Hancock.....	145	481 80	436 00	1,159	267 00	180 00	454	158 25	148 00			
Hamilton.....	149	54 00	54 00	400	208 00	137 00	131	137 00	131 00			
Hardin.....	9	12 00	5 00	262	272 75	133 50	236	127 30	95 30	2	100 00	70 00
Harrison.....	64	35 00	16 50	197	35 20	28 30	6	4 50	3 50			
Henry.....	222	135 80	67 60	300	117 70	86 50	132	98 00	58 40			
Highland.....	162	66 90	27 55	275	119 25	53 30	19	6 60	4 00			
Hocking.....	103	81 75	51 25	452	97 75	88 80	29	18 00	9 15			
Jackson.....	8	36 00	1 25	78	25 75	10 75	6	32 25	3 50			
Jefferson.....	168	81 70	56 80	520	121 40	118 50	82	52 65	34 40			
Knox.....	80	112 25	27 25	572	282 95	132 49	78	128 50	65 23			

Lake.....	536	413 00	170 75	1,880	256 50	237 00	437	132 00	80 75	9	88 00	80 00
Lawrence.....	207	284 80	177 20	337	260 00	194 50	31	37 50	26 00			
Licking.....	208	307 05	160 90	402	239 50	229 00	334	282 15	253 50	3	200 00	150 00
Logan.....	335	158 25	155 00	52	23 00	120 85	638	382 15	158 00			
Lorain.....	519	119 00	105 00	241	327 25	137 40	64	78 90	180 25			
Lucas.....	318	247 25	117 00	539	169 35	124 00	143	218 75	177 50	2	135 00	135 00
Nadison.....	182	271 00	85 50	418	329 75	206 75	119	103 00	117 50	2	60 00	60 00
Naioning.....	333	173 30	165 35	236	130 40	65 45	201	118 50	196 50			
Marion.....	542	135 25	113 75	635	247 25	183 00	497	253 50	12 75			
Medina.....	259	81 00	59 85	699	206 95	153 25	68	101 40	147 05			
Megs.....	75	55 00	39 25	246	85 30	173 04	412	22 75	248 00			
Mercer.....	421	70 00	61 50	328	250 00	342 00	460	292 00	3 45			
Miami.....	196	300 00	203 00	766	378 00	66 00	5	25 00				
Monroe.....	18	26 00	24 00	340	175 00							
Montgomery.....												
Morgan.....	160		20 50			70 00			5 00			
Morrow.....	98	98 00	32 00			221 00	390	248 00	80 00			
Muskingum.....	137	266 35	133 70	98	97 50	54 75	153	122 75	116 50			
Noble.....	27	35 25	22 00	58	131 25	22 50	66	86 25	43 25			
Paulding.....	177	115 00	42 50	437	213 00	136 50	116	71 00	45 50			
Perry.....	127	174 75	96 25	37	80 00	16 00	23	48 75	15 50			
Pike.....	14	19 50	4 00	40	130 00	15 00		3 75				
Portage.....	229	189 65	133 75	416	139 65	109 70	222	129 85	85 50	1	90 00	40 00
Preble.....	359	117 25	90 50	600	248 75	202 25	310	274 50	230 50	2	150 00	120 00
Putnam.....	190	150 00	90 00	1,250	230 00	205 00	540	205 00	200 00	1	150 00	90 00
Richland.....	216	60 50	55 60				413	184 05	148 90			
Sandusky.....	298	210 75	165 50	784	540 75	322 64						
Scioto.....	99	124 60	70 75	234	243 60	145 55						
Seneca.....	175	245 00	129 50	885	258 00	113 00	168	165 00	120 00			
Shelby.....	105	92 75	49 75				620	244 50	209 15			
Stark.....	309	248 50	114 10	376	162 85	138 00	276	310 00	266 00		225 00	200 00
Summit.....												
Trumbull.....	257	186 25	132 50	765	146 00	135 75	231	74 75	63 00	3	150 00	120 00
Tuscarawas.....	124	37 75	24 05	143	72 25	67 25	112	71 75	68 50			
Union.....	18	50 75	48 75	321	107 10	94 10	54	39 45	37 20			
Van Wert.....	330	188 00	170 00	738	359 75	226 50	200	253 25	135 50			
Warren.....	190	78 75	70 50	244	97 50	61 25	115	64 25	47 25			
Washington.....	30	237 00	34 25	18	75 00	30 75		100 00	22 00			
Wayne.....	140	71 50	61 00	1,761	228 50	209 50	666	155 50	133 78	6	140 00	135 00
Williams.....	276	140 00	112 00	1,215	350 00	225 00	398	161 00	161 00			
Wood.....	297	172 25	89 50	1,632	299 50	232 50	1,142	320 05	280 85			
Wyandot.....	71	37 00	30 10	298	150 00	79 50	11	19 00	9 00			

TABLE II—ENTRIES AND AWARDS—Concluded.

Counties.	School Work.			Merchandise.		
	Total Number Entries.	Total Amount Premiums Offered.	Total Amount Premiums Awarded.	Total Number Entries.	Total Amount Premiums Offered.	Total Amount Premiums Awarded.
Adams.....	221	\$341 50	\$101 00	39	\$203 00	\$176 00
Allen.....	87	190 50	45 25			39 85
Ashtabula.....	3		59 00			
Athens.....						
Auglaize.....						
Belmont.....						
Brown.....						
Butler.....	12	41 00	22 00			
Carroll.....	1,648	371 00	338 50	8	42 00	18 00
Champaign.....						
Clark.....						
Clermont.....						
Clinton.....	6	88 00	17 00	15	30 50	29 50
Columbiana.....	5	100 00	92 00	35	155 75	104 75
Coshocton.....	21	342 00	342 00	13	111 00	89 00
Crawford.....						
Cuyahoga.....	657	454 60	398 40	6	63 00	34 00
Darke.....	33	24 00	13 50			
Defiance.....	38	42 00	42 00			
Delaware.....	67	111 00	111 00			
Erie.....	317	390 00	330 00			
Fairfield.....	125	200 00	72 00			
Fulton.....						
Galla.....						
Geauga.....		15 00				
Greene.....						
Guernsey.....				10	22 00	3 50
Hamilton.....						
Hancock.....				16	190 00	95 00
Hardin.....	38	63 00	48 50	13		
Harrison.....						
Henry.....						
Highland.....						
Hocking.....	4	15 00	3 50	15		
Hudson.....	2		5 00			
Jefferson.....	1	8 00				
Knox.....	111	128 00	60 25			
Lake.....						
Lawrence.....						

[illegible]

TABLE III—PROPERTY, RECEIPTS, DISBURSEMENTS, ETC., OF COUNTY AGRICULTURAL SOCIETIES IN 1913.

Counties.	When Organized.	Number Members.	Number of acres in Fair Grounds.	Are Grounds owned by society, or leased?	If owned, cash value.	Indebtedness, first of year.	Are Fair Grounds Buildings insured?	Date of annual election.	Votes cast.	Member of Ohio Fair Managers' Association.
Adams.....	1889	132	16.50	Owned	\$6,000 00	\$2,650 00	No.....	Jan. 25.....	119	No.
Allen.....	1860	1,947	36	Leased	25,000 00	3,500 00	Yes.....	Jan. 11.....	56	Yes.
Ashtabula.....	1856	163	30	Owned	25,000 00	4,000 00	Yes.....	Aug. 20.....	35	Yes.
Athens.....	1851	156	35	Owned	25,000 00		Yes.....	Dec. 20.....		Yes.
Auglaize.....										
Belmont.....	1848	121	17.50	Owned	26,000 00	557 34	Yes.....	Sept. 17.....	14	No.
Brown.....	1849	618	20	Owned	70,000 00		Yes.....	Jan. 18.....	213	No.
Butler.....	1851	10	57	Owned	8,000 00	3,700 00	No.....	Oct. 1.....	51	Yes.
Carroll.....	1850	314	33	Owned	15,000 00		Yes.....	Nov. 28.....	128	Yes.
Champaign.....	1846	55	50	Owned	50,000 00	2,900 00	Yes.....	Jan. 25.....	55	Yes.
Clark.....	1852	98	46.33	County	14,000 00	2,539 72	No.....	Jan. 11.....	33	Yes.
Clermont.....	1848	831	40	Owned	25,000 00	209 69	Yes.....	Aug. 22.....	30	Yes.
Columbiana.....	1905	10	35	Leased	25,000 00	4,500 00	Yes.....	Jan. 4.....	44	Yes.
Coshocton.....	1849	441	35	Owned	75,000 00	5,750 00	Yes.....	Nov. 1.....	174	Yes.
Crawford.....	1851	417	38	Owned	35,000 00	3,950 00	Yes.....	Dec. 14.....	204	Yes.
Cuyahoga.....	1852	239	70	Owned			Yes.....	Sept. 11.....	72	Yes.
Darke.....	1852	10	53.67	Owned	\$2,000 00	16,000 00	Yes.....	Aug. 29.....	176	Yes.
Defiance.....	1909	43	34.75	Leased		849 66	Yes.....	Jan. 18.....	23	Yes.
Delaware.....	1909		26	Leased		3,353 90	Yes.....	Jan. 25.....	29	Yes.
Erie.....	1858	541	45	Leased			Yes.....	Dec. 6.....	87	No.
Fairfield.....	1851	337	70	Owned	202,000 00	10,000 00	Yes.....	Jan. 25.....		Yes.
Fulton.....	1857	16	39	County		2,400 00	Yes.....	Dec. 13.....	44	Yes.
Gallia.....	1909	30	18	Leased		900 00	Yes.....			
Geauga.....	1831	612	35	Owned		701 56	Yes.....	Jan. 25.....	19	No.
Greene.....	1839	14	36	Leased	30,000 00	4,100 00	Yes.....	Aug. 7, 8, 9.....	678	Yes.
Guernsey.....	1877	14	28	Owned	100,000 00		No.....	Jan. 25.....	56	No.
Hamilton.....	1851	504	47	Owned			Yes.....	Jan. 31.....		Yes.
Hancock.....	1852	10	77	Owned	6,500 00	2,900 00	No.....	Oct. 4.....	304	Yes.
Hardin.....	1900	30	45	Owned		3,500 00	Yes.....	Jan. 25.....	21	Yes.
Harrison.....	1847	42	40	Leased			Yes.....	Jan. 10.....	37	No.
Henry.....	1909	207	36	Leased			Yes.....	Jan. 6.....	17	Yes.
Highland.....	1908	67	24	Leased			No.....	Dec. 27.....	9	Yes.
Hocking.....	1853	390	35	Owned	22,000 00	1,600 00	Yes.....	Jan. 18.....	98	No.
Hocking.....	1913	474	23	Leased			Yes.....	Mar. 15.....		No.
Jefferson.....	1871	20	20	Leased			Yes.....	Jan. 25.....	13	No.
Knox.....	1909	162	43	Leased		2,740 50	Yes.....	Dec. 28.....	40	No.
Lake.....	1911	1,140	60	Owned	80,000 00	3,463 70	Yes.....	Jan. 31.....		Yes.
Lake.....	1910	70	22	Owned	7,500 00	1,550 00	Yes.....	Jan. 25.....	34	Yes.
Licking.....	1852	489	68	Owned	100,000 00	6,396 67	Yes.....	Oct. 25.....	208	Yes.
Licking.....	1848	18	37	Owned	26,000 00	6,043 94	Yes.....	Jan. 26.....		Yes.
Lorain.....	1845	217	31	Owned	50,000 00	4,562 06	Yes.....	Jan. 25.....	43	Yes.

Lucas.....	1870	25	43.62	Owned	120,000 00	29,750 00	Yes.....	Jan. 25	25	Yes.
Madison.....	1889	1,323	48.	Owned	24,000 00	177 90	Yes.....	Jan. 7	42	Yes.
Mahoning.....	1846	10	50.	Owned	15,000 00		Yes.....	Nov. 5	30	
Marion.....	1850	762	57.	County			Yes.....	Jan. 25	642	Yes.
Medina.....	1845	740	27.75	Owned	10,000 00	3,000 00	No.....	Jan. 25	76	Yes.
Meigs.....	1855	34	72.	Owned	7,500 00	152 25	Yes.....	Jan. 25	27	No.
Merger.....	1892	15	57.	Owned	40,000 00	3,500 00	Yes.....	Aug. 22	517	Yes.
Miami.....	1846	54		County	35,000 00		Yes.....	General election		Yes.
Miami.....	1846	127	35.	Owned	20,000 00	7,000 00	No.....	Jan. 25	40	No.
Montgomery.....	1853	133	23.49	Owned	3,500 00	3,150 00	No.....	Jan. 25	17	No.
Morgan.....	1850		35.	Owned	16,000 00	3,500 00	No.....	Oct. 11	40	Yes.
Morrow.....	1846		44.	Owned	75,000 00	21,000 00	Yes.....	Jan. 25	134	Yes.
Muskingum.....	1852	25	10.71	Owned	2,000 00	719 25	No.....	Jan. 25	9	No.
Noble.....	1872	164	33.	Owned	14,000 00	1,500 00	Yes.....	Sept. 5	164	Yes.
Paulding.....	1872	100	27.	Leased		1,691 23	Yes.....	Jan. 25	47	Yes.
Perry.....	1894	81	40.	Leased		4,834 70	Yes.....	Jan. 9		Yes.
Pike.....	1912	780	46.71	{ 21 owned 25.71 leased }	30,000 00	9,462 00	Yes.....	Jan. 25	12	No.
Portage.....	1850	13	43.	County	25,000 00	8,578 60	Yes.....	Sept. 25	637	Yes.
Preble.....	1850	377	40.	County	40,000 00	4,463 71	No.....	Jan. 25	96	Yes.
Putnam.....	1855	207	30.	County		5,421 55	No.....	Sept. 6	14	Yes.
Richland.....	1849	1,659	46.	Owned	45,000 00	13,400 00	Yes.....	Jan. 25	204	Yes.
Sandusky.....	1852	42	25.	Leased		9,000 00	Yes.....	Jan. 25	42	No.
Scioto.....	1891	200	42.	Leased			Yes.....	Last Week in Jan	25	Yes.
Seneca.....	1902		43.	County	30,000 00	3,100 00	Yes.....	General Election		Yes.
Shelby.....	1857	313	50.	County	75,000 00	12,500 00	Yes.....	Jan. 3	32	Yes.
Stark.....	1849									
Summit.....	1815	319	37.61	Owned	25,000 00		Yes.....	Jan. 25	22	Yes.
Trumbull.....	1850	304	27.	Owned	60,000 00	3,500 00	Yes.....	Jan. 25	268	No.
Tuscarawas.....	1847	14	49.50	Owned	12,000 00	5,300 00	Yes.....	Jan. 25	321	Yes.
Union.....	1855	223	54.25	Owned	50,000 00	11,000 00	No.....	Sept. 11	223	Yes.
Van Wert.....	1849	599	33.	Leased		1,400 00	Yes.....	Sept. 12	67	Yes.
Warren.....	1851	191	32.	Owned	30,000 00	12,205 08	No.....	Sept. 18	14	No.
Washington.....	1851	200	42.	County	30,000 00	5,600 00	No.....	Jan. 25	20	Yes.
Wayne.....	1887	167	42.75	Owned	30,000 00	4,088 92	No.....	Sept. 12	27	Yes.
Williams.....	1899	312	61.60	Leased	20,000 00	900 00	Yes.....	Jan. 25	38	Yes.
Wood.....	1872	86	30.	Owned	4,225 00		Yes.....	Jan. 3	23	Yes.
Wyandot.....	1852									

TABLE III.—PROPERTY, RECEIPTS, DISBURSEMENTS, ETC., OF COUNTY AGRICULTURAL SOCIETIES IN 1913—Continued.

County.	Cash in Treas- ury at Begin- ning of Fiscal Year.	Amount Received Gate Admis- sions.	Amount Received Grand Stand Admissions.	Amount Received State per Cap- ita Allowance.	Amount Received County Com- missioners.	Amount Received Entry Fees— Class.	Amount Received Entry Fees— Speed.	Amount Received Stall and Pen Rent.	Amount Received Booth Rents and Privilege Fees.	Amount Received All Other Sources.
Adams	812 24	\$1,853 25	\$242 25	\$495 10	\$2,388 51	\$97 95	\$27 00		\$336 00	\$385 00
Allen	1,435 74	2,625 00	\$342 25	800 00	800 00	314 25	1,610 00	\$183 00	2,061 50	2,490 35
Ashabula	865 57	3,355 75	946 75	800 00	1,500 00	415 30	1,502 50		1,434 55	1,805 00
Athens	364 60	3,719 40	1,122 25	800 00	1,223 03	195 20	491 00	156 00	1,084 65	837 25
Auglaize		355 20		800 00	787 75	216 95			143 75	3,505 00
Brown	1,121 16	2,865 05		496 64		11 40		140 25	517 00	2,515 15
Buena Vista	11,443 98	3,108 50	2,025 00	800 00			890 00	131 00	2,920 00	31,469 43
Butler	3,112 36	542 25		315 22	289 53	853 16		688 00		40 06
Carroll	1,859 42	3,508 71	471 20	800 00	1,197 50		1,367 80		1,172 00	2,802 74
Champaign	92 71	4,174 21	1,251 15	800 00	1,240 00	373 70	830 00	919 08	1,118 75	2,17 53
Clark		2,503 00	282 00	473 60		5 50	434 16	98 25	713 10	150 00
Clermont	45 05	1,643 30	589 25	473 60		201 28	632 50		2,392 51	997 60
Columbiana		2,978 95	276 00	800 00	700 00	32 00	630 00	95 50	993 00	2,725 20
Coshocton	162 73	7,360 85	895 85	802 42	680 73	503 73	547 50			
Crawford	106 96	3,204 23	568 00	680 72	1,578 70	91 55	492 50			
Cuyahoga	2,299 76	10,281 00	1,701 00	800 00	1,854 75	96 90	877 50	272 00	4,074 92	545 15
Darke	33 52	1,857 23	346 75	489 00	1,500 00		265 00	69 00	492 80	936 90
Delaware	97 27	917 25		763 64			1 85	43 35	350 50	32 14
DeWitt	83 87	2,712 00	1,275 25	760 00	700 00		1,487 00		346 70	291 00
Fairfield	6,461 30	1,143 25		784 02	1,500 00		2,203 65		3,200 00	280 00
Fulton	61 16	3,231 50	518 25	473 33	957 46		635 75		1,279 75	185 53
Gallia		1,823 55	317 20	514 90		8 20	242 80	47 10	281 00	300 00
Greene		2,166 50	433 60	283 40	478 14		580 00		1,807 00	3,124 85
Guernsey	318 24	3,902 10	1,036 50	800 00	1,500 00	260 40	237 85	75 00	3,662 35	383 05
Hamilton	1,993 66	2,149 45	1,145 25	800 00	1,500 00		1,270 50	150 80	3,662 35	1,234 83
Hancock	82 22	7,736 80	493 75	608 14	1,500 00	227 20	826 00	107 00	671 15	2,720 55
Hardin	495 68	3,639 55	476 75	608 14	1,500 00	144 00	1,140 00	86 00	1,249 25	176 43
Harrison	17 27	2,626 55		381 52		83 86			221 75	86 35
Henry	345 14	2,707 65	686 25	502 33	1,100 00	50 55	580 10	167 70	1,404 00	606 49
Hocking		1,683 20	712 50	574 23	500 00	119 25	230 00		325 75	606 49
Highland	79 17	2,969 20	421 25	473 00	796 77	48 56	518 35		489 15	1,860 09
Hocking		1,244 96					300 00		489 15	
Jackson		1,833 95	761 30	800 00	1,492 76	152 60	684 60		356 00	1,381 75
Jefferson	684 43	3,036 50	260 00	603 62	177 01	31 00	532 50	60 15	2,446 65	26,766 16
Knox	339 26	7,674 75	1,829 25	789 76	610 23	81 00	621 21		488 60	676 47
Lake	478 10	2,484 95		800 00			430 00		1,915	
Lawrence	486 19	4,986 55	300 00	800 00		569 49	1,095 00			

Logan.....	20 43	3,394 11	759 00	601 68	859 93	25 25	432 00	104 25	886 25	961 59
Lorain.....	552 62	3,392 95	424 75	800 00	1,890 00	921 10	442 50	370 80	740 50	
Lucas.....	121 02	6,433 30	1,945 75	800 00	1,849 82	910 00	1,450 00	156 00	3,089 80	30,656 99
Madison.....	177 90	6,353 90		398 04	1,805 65	445 58	637 50	144 00	1,117 25	96 01
Maioning.....		6,751 75	1,448 00	800 00	1,000 00	383 88	1,837 50		1,975 90	1,995 00
Marion.....	769 08	6,993 75	871 50	679 42	1,479 03	83 10	435 00		1,788 70	522 00
Medina.....	16 48	2,589 49	289 70	471 96	790 20	102 90	740 00	20 50	588 70	187 80
Meigs.....		2,299 65	264 35	511 88		58 40	628 25	125 00	715 25	187 80
Mercer.....	986 66	5,968 25	1,338 45	550 72			1,390 65	236 75	1,413 50	82 72
Miami.....	4,006 50	4,969 15	871 25	800 00	1,443 08		1,043 45		2,174 25	228 95
Monroe.....	43 50	2,059 40	255 50	484 88	742 78	102 20			377 50	239 55
Montgomery.....		105 00		321 94	280 32					1 00
Morgan.....		3,062 75		336 30	1,215 92	723 00	1,150 00	672 22	303 01	4,387 00
Morrow.....	392 22	5,161 35		800 00		118 94	879 00		1,017 89	2,408 08
Muskingum.....	10	427 45	10 70	372 02	141 17	120 10	56 25		152 45	13 00
Noble.....	42 49	2,868 95	540 50	454 60	273 54	150 05	315 00	78 00	997 75	751 10
Paulding.....	20 30	2,082 10	217 85	707 92	1,069 84	87 34	527 00		484 00	733 50
Perry.....	17 33	873 20	215 00	314 46		75 00	330 00		270 68	87 75
Pike.....		5,304 90	1,144 70	606 14	1,003 67	237 80	708 35	129 50	1,496 20	2,983 90
Portage.....	5 06	5,230 25	1,198 15	476 68	1,026 70	87 80	749 40	164 50	1,593 50	392 30
Preble.....		6,335 85		599 44	1,500 00	105 50	750 00	212 50	2,211 17	1,766 69
Putnam.....		2,534 25	383 00	800 00	1,500 00	127 89	666 00	46 00	738 00	2,029 14
Richland.....	303 72	5,601 26	896 25	703 42	1,525 86	229 80	740 00	276 50	817 39	3,581 62
Sandusky.....	323 58	1,307 28	533 50	800 00	1,500 00	46 02	845 50		387 40	
Scioto.....	119 38	3,453 95	116 90	800 00	1,500 00	139 45	595 00		1,132 10	1,291 74
Seneca.....	501 76	4,068 00	932 75	493 26	1,488 00		991 00	134 85	1,740 60	43 10
Shelby.....	259 19	6,258 75	536 10	800 00	1,000 00	440 70	526 62		1,300 80	316 20
Stark.....	1,626 13									
Summit.....		4,804 30	1,074 25	800 00	1,473 31	184 35	485 00	36 50	1,024 50	320 97
Tuscarawas.....	1,113 09	5,557 50	430 00	800 00	1,000 00	94 55	1,118 00	197 00	1,360 50	2,008 50
Union.....	938 08	2,937 77	463 50	437 42	1,000 00		507 36	40 00	725 60	229 15
Van Wert.....	89 07	8,426 35	1,883 65	582 38	1,500 00	161 80	1,469 00	254 00	2,864 34	389 30
Warren.....	349 20	2,228 20	356 45	489 94	994 48	124 41	480 00		608 50	1,458 00
Washington.....	28 75	382 95	36 95	800 00	1,014 79	40 00	40 00		114 15	1,953 25
Wayne.....	108 41	3,602 65	494 65	761 16	1,251 27	348 03	1,125 00		748 12	2,381 10
Wood.....	141 55	4,251 30	672 75	503 96	1,500 00	4 00	512 20	41 00	828 50	2,196 32
Williams.....	581 79	7,688 50	1,799 75	800 00	1,500 00	542 28	2,176 00	94 50	2,990 50	909 79
Wood.....	345 00	1,770 00	152 40	415 20	1,500 00	113 00	556 55		624 50	
Wyandot.....										

TABLE III—PROPERTY, RECEIPTS, DISBURSEMENTS, ETC., OF COUNTY AGRICULTURAL SOCIETIES IN 1918—Continued.

County.	Amount Paid Premiums— Class.	Amount Paid Speed.	Amount Paid Advertising, Newspapers.	Amount Paid Other Advertising.	Amount Paid Printing.	Amount Paid Supplies.	Amount Paid Postage.	Amount Paid Special Attrac- tions.	Amount Paid Music.	Amount Paid Judges.	Amount Paid Police Force.
Adams.....	\$1,237 10		\$84 50	\$136 25	\$74 35	\$14 73	\$5 50	\$100 00	\$85 00	\$57 10	\$34 00
Allen.....	2,597 75	\$3,000 00	353 00	332 84	264 00	269 13	115 00	697 90	285 00	135 00	157 00
Ashtabula.....	2,255 95	3,457 50	294 13	183 05	236 88		53 38	214 50	374 20	184 05	230 75
Athens.....	939 60	1,572 50	482 36					51 00	253 00		304 00
Auglaize.....	984 15		108 90	54 00	130 50	95 18	22 00	155 40	150 00	62 40	38 00
Belmont.....	1,717 00		76 50	47 42	109 50		8 50		150 00	76 20	65 00
Brown.....	3,165 40	3,820 00	281 76	119 00	605 65	128 86	47 00		129 00	161 00	113 00
Butler.....	1,691 55	1,300 00	273 33	8 00		35 00	15 00		115 00	88 00	70 00
Carroll.....	2,274 15	2,730 00	172 99	194 96	104 25	41 53	42 84	200 00	105 00	165 00	82 00
Champaign.....	3,245 95	2,236 00	269 38	212 35	108 50	275 59	25 00		173 00	91 95	444 50
Clark.....	1,466 88	1,200 00	30 00	31 96	107 33	87 04	8 80	300 00	120 00	73 00	98 00
Clermont.....	1,027 75	1,640 00	29 10	131 44	153 92	59 27	7 45		141 00	54 65	112 50
Columbiana.....	1,375 00	1,540 00	56 85	14 90	292 85		23 08	137 30	181 20	85 00	86 00
Coshocton.....	3,964 35	2,100 00	179 25	103 35	265 98		12 30		225 00	197 55	181 50
Crawford.....	2,714 85	1,990 00	60 15	104 46	110 80	27 50	10 00	200 00	215 00	104 00	165 00
Cuyahoga.....	3,638 78	3,115 00	232 28	763 85	414 95	156 00	43 00	500 00	650 00	203 60	668 08
Darke.....	1,500 70	1,032 15	194 35	252 56	75 75	63 05	34 10		715 95	143 00	92 00
Defiance.....	240 75	435 65	28 00	11 70	20 00	24 05	52 00	20 00	75 00	10 00	70 00
Delaware.....	1,147 80	2,650 00	312 42	411 20	182 50	425 33	83 55	300 00	135 00	77 50	75 00
Eric.....	4,305 50	3,050 00		231 85		705 80			110 00	200 00	336 00
Fairfield.....	1,716 40	1,214 00	61 36	70 00	40 00	90 00	33 50	50 00	150 00	110 00	137 00
Fulton.....	1,609 00	1,938 00	184 94	84 70		271 32		120 00	71 00	13 25	137 75
Gallia.....	1,438 00	1,200 00	147 47	147 72		170 49	16 45	115 00	75 00	73 00	137 00
Geauga.....	2,718 50	2,700 00	175 00	95 00	262 10	40 00		330 00	110 00	204 50	137 00
Greene.....	1,268 79	1,147 50	147 00	63 87				300 00	105 03	82 00	97 50
Hamilton.....	2,208 00	3,862 00	506 31	645 98	128 38	514 12	50 00	907 00	280 00	251 80	119 34
Hancock.....	2,406 55	2,400 00	107 00	143 98	279 24	31 08	76 82	325 00	107 00	187 00	123 30
Hardin.....	1,655 20	2,650 00	145 40	79 93		57 73	18 36	150 00	57 00	108 00	97 75
Harrison.....	682 20	2,459 50	34 75	7 93	74 65		9 74	139 88	57 00	143 70	89 00
Henry.....	2,064 79	2,458 50	88 31	325 60		80 53	14 00	700 00	201 00	143 00	85 75
Highland.....	1,173 70	1,038 75	39 36	39 96	115 63	43 89	1 75		179 00	39 30	52 75
Hocking.....	958 00	2,051 25	37 10	151 53	117 50	43 83	5 00		140 25	102 00	100 00
Jackson.....	239 75	1,427 14	32 50	17 87	118 50	30 65	49 71	150 00	110 00	123 00	42 70
Jefferson.....	1,241 55	1,860 00	30 00	213 66	182 75	311 69	8 00		155 00	103 00	61 50
Knox.....	1,260 52	1,860 00	146 32	710 00	591 55	193 25	17 00		372 00	143 75	58 00
Lake.....	2,962 25	1,562 60	670 00	1,522 60	671 55	180 25	69 19	1,003 30	375 00	275 80	586 26
Lawrence.....	979 85	1,560 00	206 81	138 76	77 00	71 31	9 61	50 00	125 00	40 00	52 70
Licking.....	3,221 75	2,370 00	245 22	56 25	197 03	46 00	10 00	300 00	139 00	138 30	149 75

Logan.....	1,780 36	1,896 00	93 51	294 50	92 10	158 43	24 80	118 50	98 00	116 75
Lorain.....	2,183 20	1,590 00	85 80	79 62	15 25	64 00	7 00	195 00	128 65	82 10
Lucas.....	3,244 00	2,260 00	348 28	588 75	471 11	95 90	83 87	288 00	383 50	488 50
Madison.....	2,620 00	3,600 00	85 00	388 86	173 60	354 60	21 00	211 60	155 15	106 00
Marion.....	2,370 00	2,200 00	788 52	209 25	309 25	15 00	15 00	229 00	225 00	125 00
Marion.....	3,180 40	3,550 00	417 96	299 08	181 55	55 70	28 00	220 00	176 50	290 50
Medina.....	1,449 56	1,410 00	75 16	63 50	56 13	151 72	12 00	100 00	58 15	78 00
Meigs.....	772 40	1,740 00	106 20	154 80	40 00	95 55	15 20	36 00	57 50	158 50
Mercer.....	2,400 84	2,820 51	297 03	249 03	241 75	370 87	98 00	278 20	170 00	360 00
Miami.....	4,091 50	2,760 00	196 00	76 00	142 40	396 50	19 00	228 00	198 00	220 00
Monroe.....	629 45	2,007 00	79 72	135 79	9 10	12 75	12 75	188 00	50 70	39 00
Montgomery.....	130 00	2,400 00	332 65	441 54	123 35	185 00	3 00	125 90	85 00	172 00
Morrow.....	2,460 30	2,144 00	545 95	61 01	29 50	81 88	12 00	205 00	149 80	250 50
Muskingum.....	392 60	135 00	19 85	113 48	98 00	3 64	5 00	43 00	40 00	41 50
Noble.....	1,213 50	1,837 50	39 15	219 30	29 45	104 32	14 00	150 00	111 90	193 62
Paulding.....	589 82	1,262 00	45 31	50 75	93 00	34 95	6 05	101 00	56 00	44 00
Pike.....	198 35	1,100 00	71 66	50 75	93 00	34 15	50 00	90 00	30 00	27 25
Portage.....	2,660 20	1,982 85	40 00	437 62	130 00	46 50	42 10	265 00	183 20	285 50
Pottawam.....	3,622 00	2,080 60	146 20	322 76	458 70	478 01	54 24	290 00	208 65	229 50
Putnam.....	3,106 28	2,160 00	200 00	280 14	278 30	16 20	33 00	384 00	204 05	77 00
Richland.....	1,368 12	1,900 00	236 78	95 38	258 45	99 63	22 50	129 65	201 63	63 00
Sandusky.....	3,403 64	2,536 00	237 03	311 88	73 80	30 75	46 00	328 50	220 30	695 90
Scioto.....	711 00	845 50	25 40	89 85	73 80	90 12	10 25	75 00	47 00	54 60
Seneca.....	2,112 76	1,820 00	176 73	409 41	10 50	16 20	96 56	166 40	240 20	136 75
Shelby.....	1,926 25	2,677 00	89 85	204 00	163 24	16 20	33 00	374 00	210 10	80 00
Stark.....	2,837 90	1,810 00	206 35	129 18	50 25	99 63	22 50	306 20	111 15	96 75
Summit.....	2,009 50	2,030 00	107 94	127 98	168 36	227 69	16 00	116 00	98 60	28 40
Tuscarawas.....	1,014 55	2,586 00	232 08	619 00	38 00	24 30	16 25	45 00	184 15	110 25
Union.....	2,447 50	2,447 50	232 08	619 00	38 00	24 30	16 25	45 00	184 15	110 25
Van Wert.....	4,508 94	3,450 00	204 00	476 36	116 43	203 05	118 13	295 00	183 80	95 00
Warren.....	1,463 75	1,590 00	115 77	456 65	173 06	318 87	30 00	684 00	180 75	146 75
Washington.....	1,393 08	450 00	205 00	169 00	1 00	66 54	15 00	109 00	30 00	140 00
Wayne.....	1,742 14	2,400 00	76 21	134 20	127 68	248 00	12 00	42 00	85 00	31 15
Williams.....	5,173 95	2,148 24	76 21	134 20	127 68	248 00	12 00	42 00	85 00	31 15
Wood.....	1,061 45	4,563 00	91 54	697 45	104 25	160 00	47 70	354 50	113 50	127 50
Wyandot.....	1,061 45	758 45	91 54	37 50	104 25	34 95	9 00	200 00	286 00	560 75

TABLE III—PROPERTY, RECEIPTS, DISBURSEMENTS, ETC., OF COUNTY AGRICULTURAL SOCIETIES IN 1913—Continued.

Counties.	Amount Paid Expenses of Members.	Amount Paid Secretary or President for Attendance at Annual Meeting.	Amount Paid Secretary.	Amount Paid Salary Treasurer.	Amount Paid Helpers Other Than Above.	Amount Paid Current Expenses, Other Than Above.	Amount Paid Real Estate, Buildings and Improvements.	Amount Paid Old Indebtedness.	Balance in Treasury.	Amount of Unpaid Bills and Accounts.
Adams.		\$50 00	\$50 00	\$25 00	\$113 85	\$174 80	\$249 70	\$797 00	\$12 74	
Allen.	\$390 00	22 50	600 00	150 00	160 87	928 14	1,004 70		2,775 77	
Ashland.	338 65	21 55	200 00	60 00	558 84	895 12	717 38	1,448 13	326 75	13 25
Athens.	75 00	10 00	450 00	50 00		738 12	1,100 25	240 00	969 95	
Aurora.										
Belmont.	250 00	15 55	150 00	75 00	132 00	109 96	3,087 13	557 34	88 69	
Brown.	1,611 00	17 00	350 00	125 00	876 00	2,881 47	910 35		1,025 15	
Bufile.	382 15	12 00	125 00			712 48	33,492 83		8,533 93	
Camden.	322 00	12 00	225 00	100 00	92 50	835 91	1,586 45		1,475 75	
Clark.	230 43	24 50	400 00	60 00	793 00	681 51	896 24	3,054 30	1,259 07	
Clemont.	30 04	16 00	125 00	60 00	219 50	303 25	637 85	39 72	50 93	
Columbiana.	30 00	10 35	50 00	50 00	140 00	263 51	530 12	254 74		
Coshocton.	268 50	7 00	200 00	62 50	137 00	1,657 73		900 00		
Crawford.	527 50	5 00	250 00	50 00	678 45	1,879 44	443 26	3,200 00	285 60	2,550 00
Cuyahoga.					77 00	1,208 07	1,183 96	1,600 00		
Darke.	1,405 80	60 10	300 00	100 00	1,832 57	614 27	1,641 27	4,994 93	1,429 00	14,500 00
Defiance.		16 95	300 00	40 00	157 60	245 79		1,071 91	17 53	
Delaware.					16 25	246 54	78 15	501 15	20 21	3,090 46
Erie.	105 60	20 00	400 00	150 00	343 05	268 16	907 38	6,000 00	166 33	
Fairfield.	37 85	8 35	450 00		250 00	450 00	1,565 29		7,341 58	
Fulton.	116 50	13 40	200 00	110 00	184 05	805 31	432 19	1,045 54	14 82	
Gallia.					35 00		8 9 40	900 00	1 14	763 48
Geauga.	32 40	15 00	260 00		112 00	769 92		2,401 94	31 23	
Greene.			150 00	50 00	147 00	105 00	1,007 97	4,100 00		
Guernsey.	133 25		75 00	10 00	50 80	493 89	295 00		304 00	
Hamilton.	210 75	32 00	450 00	250 00	1,752 02	1,631 15	2,402 60	1,000 00	756 71	
Hancock.	2 4 50	7 50	275 00	100 00	188 35	1,662 38	723 58	1,000 00	35 97	425 42
Hardin.	60 15	15 90	200 00	50 00	162 90	528 95	275 35	550 00	743 00	
Harrison.	19 45	15 00	100 00	25 00	73 40	88 05				1 20
Henry.	96 00	4 50	50 00	20 00	78 70	1,000 00	1,873 73		108 27	223 00
Highland.	37 35	18 30	100 00		123 75	1,280 24	1,018 05		13 50	21 75
Hocking.	50 00				30 00	11 62	11,588 73	2,838 72		
Jackson.	94 23		75 00	20 50	203 36	278 93	532 58		862 03	
Jefferson.		11 00	125 00	60 00	327 60	520 17	760 00		1,908 92	
Knox.		7 00	200 00	25 00	345 70	865 17		540 50	62 32	3,200 00
Lake.	15 75		300 00	100 00	1,227 45	2,229 63	21,721 90	3,463 76	858 83	803 76
Lawrence.	38 00		50 00	53 30	453 24	863 63	421 21		133 46	
Licking.	118 00	5 00	350 00	50 00	293 00	761 02	880 51	500 00	321 47	312 17

Logan.....	100 80	285 00	125 00	284 50	788 59	331 58	1,454 84	35 63
Lorain.....	165 27	200 00	150 00	673 65	815 45	1,145 91	20,144 22	1,274 32
Lucas.....	319 90	600 00	100 00	1,279 39	1,612 58	10,092 04	894 34	283 96
Madison.....	683 70	150 00	150 00	416 77	202 01	1,603 43		265 00
Mahoning.....	549 00	200 00	100 00	427 19	665 00	382 01	4,894 83	1,168 04
Marion.....	18 75	350 00	100 00	96 00	1,794 37	63 75	1,142 41	6 32
Medina.....	144 90	25 00	100 00	37 25	654 01	182 60	152 25	55 91
Megs.....	421 00	200 00	65 00	40 50	344 29	258 03	1,000 00	69 72
Mercer.....	280 00	300 00	100 00	662 00	583 61	530 44	23 00	1,743 23
Miami.....		200 00	100 00	384 00	498 00	5,091 90	840 00	252 84
Monroe.....		80 00		86 25	601 31	1 50		
Montgomery.....	6 75				12 00	94 71	157 50	200 99
Morgan.....	235 00	120 00		1,883 17				311 70
Morrow.....	104 90	250 00	75 00	129 05	2,064 61	1,243 40	66 96	7 27
Muskingum.....	106 00	50 00	50 00	42 00	143 66	113 34	759 25	22 88
Noble.....	24 65	150 00	50 00	264 75	661 99	208 47	390 49	48 47
Paulding.....	62 00	125 00	50 00	59 50	601 12	447 14	1,691 23	9 06
Perry.....				10 00	135 98	354 46		34 56
Pike.....		500 00		618 52	4,055 72	385 90	964 77	132 52
Portage.....	1,169 05	225 00	75 00	872 62	712 73	689 94	5,530 60	476 68
Preble.....	300 00	300 00	50 00	350 00	747 24	584 21	4,463 71	1,555 58
Putnam.....		250 00		165 15	1,449 47	3,083 60	2,650 96	2,650 96
Richland.....		200 00	25 00	802 35	2,575 10	2,151 10	9,000 00	110 43
Sandusky.....		50 00	25 00	241 75	397 40	484 17	54 97	1,287 41
Scioto.....	401 91	200 00		220 00	50 00	3,651 18	800 00	60 01
Seneca.....	118 15	690 00		125 00	700 46	860 71	800 00	1,075 79
Shelby.....	535 45	300 00	25 00	294 40	551 32	1,713 64	687 50	2,896 78
Stark.....								45 00
Summit.....	71 65	225 00	90 00	304 55	540 49	2,502 95		1,836 96
Tuscarawas.....	154 25	300 00	50 00	115 50	2,226 86	6,042 90	4,900 00	103 44
Union.....	194 00	250 00	60 00		1,029 33	470 74	775 50	74 00
Van Wert.....		200 00	75 00	454 00	2,870 56	958 83	2,400 00	424 43
Warren.....		200 00		188 85	273 00	748 45	1,754 25	347 00
Washington.....	16 00	200 00		79 25	2,280 30	1,327 05	12,205 08	8 23
Wayne.....	25 00	200 00		150 00	900 30	3,765 50		12 79
Williams.....	440 25	550 00	50 00	192 50	700 33	2,696 51	1,002 97	235 95
Wood.....	55 40	100 00	10 00		2,981 28	1,277 39	3,225 00	165 80
Wyandot.....		100 00	20 00	46 00	1,180 65	763 80		97 91
								169 31
								2,575 00

TABLE III—PROPERTY, RECEIPTS, DISBURSEMENTS, ETC., OF COUNTY AGRICULTURAL SOCIETIES IN 1913—Continued.

Counties.	Total Number of exhibitors.	Date of payment of premiums.	Are entries open or confined to county?	How are premium awards published?	Do you publish annual financial statement?	Do you sell family tickets?	Cost of Membership ticket.	Number of premium lists issued.	What charge is made merchants exhibit space?	What charge is made for machinery exhibit space?
Adams.....	332	Oct. 14, 1913.	Open.....	Not published	Yes.....	Yes.....	\$1 50	3,000	None.....	None.
Allen.....	258	Oct. 14, 1913.	Open.....	Newspapers	Yes.....	No.....	1 00	3,000	50c per front ft.....	25c per front ft.
Ashtabula.....	222	Oct. 1.....	Both.....	Newspapers	Yes.....	No.....	1 00	1,000	None.....	None.
Athens.....	798	Sept. 27, 1913.	Open.....	Newspapers	Yes.....	No.....	1 00	2,000	None.....	None.
Auglaize.....	103	Dec. 25, 1913.	Open.....	Newspapers	Yes.....	No.....	1 00	3,000	None.....	None.
Belmont.....	180	On and after Fair	Open.....	Newspapers	Yes.....	No.....	1 00	5,000	\$1.00 front ft. in Art hall.	None.
Butler.....	159	Oct. 25.....	Open.....	Newspapers	Yes.....	No.....	1 00	3,500	None.....	None.
Carroll.....	275	Aug. 25, 1913.	Both.....	Newspapers	Yes.....	Yes.....	1 00	2,300	None.....	None.
Champaign.....	116	Sept. 4.....	Open.....	Newspapers	Yes.....	Yes.....	1 00	2,500	\$10.00 per regular space.....	None.
Clermont.....	195	Aug. 22.....	Open.....	Not published	Yes.....	Yes.....	1 25	3,500	None.....	None.
Clinton.....	159	Aug. 29, 30, 1913.	Open.....	Newspapers	Yes.....	Yes.....	1 25	2,500	None.....	None.
Columbiana.....	176	Oct. 6.....	Open.....	Newspapers	Yes.....	No.....	1 00	4,000	None.....	None.
Coshocton.....	187	Oct. 19, 1913.	Open.....	Not published	Yes.....	No.....	1 00	3,000	None.....	None.
Crawford.....	160	Oct. 1, 1913.	Open.....	Not published	Yes.....	Yes.....	1 00	2,000	None.....	None.
Cuyahoga.....	341	Aug. 29, Sept. 9.	Both.....	Not published	Yes.....	Yes.....	1 00	4,500	Membership ticket	Membership ticket.
Darke.....	170	Sept. 22, 1913.	Both.....	Newspapers	Yes.....	No.....	1 00	2,000	None.....	None.
Defiance.....	203	Oct. 13.....	Both.....	Newspapers	Yes.....	No.....	1 00	3,000	\$5.00 for space 10 x 10 under roof.....	None.
Delaware.....	120	Oct. 10, 13.	Open.....	Newspapers	Yes.....	Yes.....	1 00	800	None.....	None.
Erie.....	402	Last day of Fair.	Both.....	Newspapers	Yes.....	No.....	25	10,000	None.....	None.
Fairfield.....	175	Oct. 15.....	Both.....	Newspapers	Yes.....	No.....	25	2,500	\$2.00 when no premium is offered.....	\$2.00 when no premium is offered.
Fulton.....	234	Nov. 15.....	Both.....	Newspapers	Yes.....	No.....	1 00	1,200	Small amount.....	Small amount.
Gallia.....	2,835	Cash.....	Open.....	Newspapers	Yes.....	No.....	1 00	2,500	None.....	None.
Gauga.....	240	Dec. 10.....	Both.....	Newspapers	Yes.....	Yes.....	1 00	3,000	None.....	None.
Greene.....	187	Aug. 18.....	Open.....	Newspapers	Yes.....	No.....	1 50	5,000	None.....	None.
Guernsey.....	162	15 days after Fair.	Open.....	Not published	Yes.....	Yes.....	25	1,800	\$1.00 per front ft. Entrance fee of \$1.	None.
Hamilton.....	132	Dec. 1, 1913.	Both.....	Newspapers	Yes.....	No.....	1 00	2,000	\$1.00 per front ft.....	Entrance fee of \$1.00.
Hancock.....	148	Oct. 20.....	Open.....	Newspapers	Yes.....	Yes.....	1 00	750	\$2.50 to \$5.00.	\$1.00 per front ft.
Hardin.....	175	Sept. 5, Dec. 1.	Open.....	Newspapers	Yes.....	No.....	25	1,800	None.....	\$2.50 to \$5.00.
Harrison.....										None.
Henry.....										

Highland	167	Nov. 10, 1913	Open	Newspapers	Yes	Yes	75	3,000	None	None
Hocking	181	Before Dec. 15	Open	Newspapers	Yes	Yes	1 00	2,500	None	None
Jefferson	65	Aug. 20, 1913	County	Newspapers	Yes	Yes	1 00	6,000	None	None
Jackson	400	Oct. 14	Open	Newspapers	No	Yes	1 00	1,500	None	None
Knox	498	Nov. 1, Dec. 1	Both	Newspapers	Yes	No	1 00	1,000	None	None
Lake	480	Oct. 1, Dec. 1	Open	Newspapers	Yes	Yes	1 00	4,000	\$1.50 and \$2.00 per front foot	None
Lawrence	135	Aug. 23	Open	Newspapers	Yes	No	1 00	4,000	\$5.00 for space 10 x 13	None
Licking	134	Oct. 15	Open	Newspapers	Yes	No	1 00	3,000	None	None
Logan		Two weeks after fair	Both	Newspapers	Yes	Yes	1 00	3,500	Membership ticket	Membership ticket
Lorain	101	10 days after Fair	Open	Newspapers	Yes	No	1 50	1,000	None	None
Lucas	213	Sept. 12	Open	Yearly report	Yes	Yes	1 00	1,000	None	None
Madison	271	Sept. 5	Both	Newspapers	Yes	No	1 00	2,500	None	None
Mahoning	107	Nov. 5, 1913	Open	Newspapers	Yes	No	1 50	2,500	None	None
Marion	186	Oct. 4	Both	Newspapers	Yes	No	1 00	2,000	None	None
Medina	177	After Fair	Open	Newspapers	Yes	No	1 00	2,500	None	None
Meigs	108	Oct. 1, Jan. 1	Open	Newspapers	Yes	No	1 00	1,500	None	None
Mercer		Aug. 22, 23	Open	Newspapers	Yes	Yes	1 00	4,000	None	None
Miami	242	Oct. 1	Open	Newspapers	Yes	Yes	1 00	3,000	None	None
Monroe	110	At time of Fair	Open	Newspapers	Yes	No	1 00	1,000	None	None
Montgomery	40	Sept. 1, 1913	Both	Newspapers	Yes	No	1 00	2,500	\$1.00 per front ft.	None
Morgan	165	Oct. 11, Jan. 1	Both	Newspapers	Yes	No	1 00	1,000	None	None
Morrow	135	Oct. 1	Both	Newspapers	Yes	No	1 00	500	None	None
Muskingum	45	Oct. 15	Open	Not published	Yes	No	1 00	2,000	None	None
Noble	140	Sept. 5	Both	Newspapers	Yes	Yes	25	1,000	None	None
Paulding	52	Nov. 19, 1913	Both	Newspapers	No	No	25	2,000	None	None
Perry	360	Aug. 8, Jan. 1	Both	Newspapers	Yes	Yes	1 00	3,500	None	None
Portage	184	Sept. 25	Open	Newspapers	Yes	No	1 00	3,500	\$10.00 to \$15.00	None
Preble	280	Sept. 26, 28	Open	Newspapers	Yes	Yes	1 25	3,000	None	None
Putnam	3,150	Dec. 1	Both	Newspapers	No	No	1 00	2,000	\$12.50 for space 8 x 10	None
Richland	81	Sept. 6, 1913	Open	Not published	No	No	1 00	3,000	\$2.00 to \$5.00	None
Sandusky	189	Oct. 1, 1913	Open	Newspapers	Yes	Yes	1 00	1,000	\$5.00 for booths	None
Scioto	120	At close of Fair	Open	Newspapers	Yes	No	50	3,000	None	None
Seneca	237	Sept. 20	Both	Not published	Yes	Yes	1 00	2,000	None	None
Shelby	159	Oct. 1, 1913	Both	Newspapers	Yes	No	1 00	3,500	50c to \$1.00 per front ft.	None
Starke		Oct. 15	Both	Newspapers	Yes	No	1 00	2,000	None	\$2 to \$10
Summit	175	Oct. 17	Open	Newspapers	Yes	No	1 00	2,000	None	None
Trumbull	203	Oct. 25	Open	Newspapers	Yes	No	1 00	1,800	\$5.00	None
Tuscarawas	131	Feb. 1914	Open	Catalogue	Yes	Yes	1 00	5,000	None	None
Van Wert	465	Last day of Fair	Both	Not published	Yes	Yes	1 50	4,000	None	None
Washington	108	Oct. 8, 1913	County	Not published	Yes	No	1 00	3,500	None	None
Wayne	28	Nov. 1	Open	Newspapers	Yes	No	1 00	2,000	None	None
Williams	210	Nov. 1	Open	Newspapers	Yes	No	1 00	3,500	None	None
Wood	270	Nov. 1	Open	Newspapers	Yes	No	1 00	2,000	None	None
Wyandot	312	Sept. 26	Open	Not published	Yes	No	1 00	1,500	None	None
Wyandot	117	Nov. 1	Open	Books open to public	Yes	No	1 00	1,000	None	None

TABLE III.—PROPERTY, RECEIPTS, DISBURSEMENTS, ETC., OF COUNTY AGRICULTURAL SOCIETIES IN 1913—Concluded.

Counties.	Do You Have Grange Exhibits?	Do You Have an Educational Hall?	What is Nature of Premiums in Educational Department?	Do You Have Ladies' and Children's Day?	Do County Commissioners Furnish Office Room?	Has Society Compiled with Laws of Ohio and Rules of Agricultural Commission?	Was Prescribed Oath Administered to Officers and Directors?	Does Society Hold Summer Picnic?	Member of Which Trotting Association?	Was Free Trip Offered to Washington for Boy and Girl?	Did You Conduct a Boys' Live Stock Judging Contest.
Adams.....	No.....	No.....	Cash.....	Children's.....	No.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Allen.....	Yes.....	Yes.....	Money and free trip.....	No.....	Yes.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Astabula.....	No.....	Yes.....	.....	No.....	No.....	Yes.....	Yes.....	No.....	National.....	No.....	Yes.....
Athens.....	No.....	No.....	.....	No.....	No.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Auglaize.....	No.....	No.....	.....	No.....	No.....	Yes.....	Yes.....	No.....	National.....	No.....	No.....
Belmont.....	No.....	No.....	.....	No.....	No.....	Yes.....	Yes.....	No.....	National.....	No.....	No.....
Brown.....	No.....	No.....	.....	No.....	No.....	Yes.....	Yes.....	No.....	National.....	No.....	No.....
Butler.....	Yes.....	No.....	.....	Children's.....	Yes.....	Yes.....	Yes.....	No.....	National.....	No.....	No.....
Carroll.....	No.....	Yes.....	.....	Children's.....	Yes.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Champaign.....	No.....	Yes.....	Cash.....	Children's.....	No.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Clark.....	No.....	Yes.....	.....	Children's.....	No.....	Yes.....	Yes.....	No.....	American.....	Boys.....	No.....
Clermont.....	No.....	Yes.....	.....	Children's.....	No.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Columbiana.....	No.....	Yes.....	Diplomas.....	Children's.....	No.....	Yes.....	Yes.....	No.....	American.....	Boys.....	No.....
Coshocton.....	Yes.....	Yes.....	Cash.....	Children's.....	No.....	Yes.....	Yes.....	No.....	National.....	No.....	No.....
Crawford.....	No.....	Yes.....	Cash.....	Children's.....	Yes.....	Yes.....	Yes.....	No.....	National.....	Boys.....	Yes.....
Cuyahoga.....	No.....	Yes.....	.....	Children's.....	No.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Darke.....	No.....	Yes.....	Cash.....	No.....	No.....	Yes.....	Yes.....	No.....	American.....	Boys.....	Yes.....
Defiance.....	No.....	Yes.....	Cash.....	Children's.....	No.....	Yes.....	Yes.....	No.....	American.....	Boys.....	Yes.....
Delaware.....	No.....	Yes.....	Books and cash.....	Children's.....	Yes.....	Yes.....	Yes.....	Yes.....	American.....	No.....	Yes.....
Erie.....	Yes.....	Yes.....	Cash.....	Children's.....	No.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Fairfield.....	No.....	Yes.....	Cash.....	No.....	No.....	Yes.....	Yes.....	No.....	National.....	No.....	Yes.....
Fulton.....	No.....	No.....	Cash.....	Children's.....	No.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Gallia.....	No.....	No.....	.....	No.....	No.....	Yes.....	Yes.....	No.....	National.....	No.....	No.....
Geauga.....	No.....	Yes.....	Cash.....	Children's.....	Yes.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Greene.....	No.....	No.....	Books.....	Children's.....	No.....	Yes.....	Yes.....	No.....	American.....	No.....	No.....
Guernsey.....	No.....	No.....	.....	Children's.....	No.....	Yes.....	Yes.....	No.....	American.....	Yes.....	No.....
Hamilton.....	No.....	No.....	.....	Children's.....	No.....	Yes.....	Yes.....	No.....	National.....	Yes.....	No.....
Hancock.....	Yes.....	No.....	Books.....	Children's.....	Yes.....	Yes.....	Yes.....	No.....	National.....	Yes.....	No.....
Hardin.....	No.....	No.....	.....	No.....	No.....	Yes.....	Yes.....	No.....	American.....	No.....	No.....
Harrison.....	No.....	No.....	.....	Children's.....	No.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Henry.....	Yes.....	Yes.....	Cash.....	Children's.....	No.....	Yes.....	Yes.....	Yes.....	National.....	No.....	No.....
Highland.....	Yes.....	No.....	.....	Yes.....	No.....	Yes.....	Yes.....	No.....	American.....	No.....	No.....
Hocking.....	Yes.....	No.....	.....	No.....	Yes.....	Yes.....	Yes.....	No.....	National.....	No.....	No.....
Jackson.....	Yes.....	Yes.....	.....	Children's.....	No.....	Yes.....	Yes.....	No.....	American.....	No.....	No.....
Jefferson.....	No.....	Yes.....	Cash.....	No.....	Yes.....	Yes.....	Yes.....	No.....	National.....	No.....	No.....
Knox.....	No.....	Yes.....	.....	Children's.....	No.....	Yes.....	Yes.....	No.....	National.....	Yes.....	No.....
Lake.....	Yes.....	No.....	.....	No.....	No.....	Yes.....	Yes.....	No.....	American.....	No.....	Yes.....

Lawrence.....	No.....	No.....	No.....	Yes.....	Yes.....	Yes.....	No.....	National.....	No.....	No.....
Licking.....	Yes.....	No.....	No.....	Yes.....	Yes.....	Yes.....	No.....	American.....	No.....	No.....
Logan.....	No.....	No.....	No.....	Yes.....	Yes.....	Yes.....	No.....	American.....	No.....	No.....
Loran.....	Yes.....	No.....	Children's.....	Yes.....	Yes.....	Yes.....	No.....	American.....	No.....	No.....
Lucas.....	No.....	No.....	Children's.....	Yes.....	Yes.....	Yes.....	No.....	National.....	No.....	No.....
Madison.....	Yes.....	No.....	No.....	Yes.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Mahoning.....	Yes.....	No.....	Children's.....	Yes.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Marion.....	No.....	No.....	No.....	Yes.....	Yes.....	Yes.....	No.....	American.....	Boys.....	No.....
Medina.....	No.....	No.....	Children's.....	Yes.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Meigs.....	No.....	No.....	No.....	Yes.....	Yes.....	Yes.....	No.....	American.....	Boys.....	No.....
Mercer.....	No.....	No.....	No.....	Yes.....	Yes.....	Yes.....	No.....	National.....	No.....	No.....
Miami.....	No.....	Yes.....	No.....	Yes.....	Yes.....	Yes.....	Yes.....	National.....	Boys.....	Yes.....
Monroe.....	No.....	No.....	No.....	Yes.....	Yes.....	Yes.....	Yes.....	National.....	No.....	No.....
Montgomery.....	Yes.....	No.....	Children's.....	Yes.....	Yes.....	Yes.....	Yes.....	National.....	No.....	No.....
Morgan.....	No.....	Yes.....	No.....	Yes.....	Yes.....	Yes.....	Yes.....	National.....	Boys.....	No.....
Morrow.....	Yes.....	No.....	Yes.....	Yes.....	Yes.....	Yes.....	No.....	National.....	No.....	No.....
Muskingum.....	No.....	No.....	No.....	Yes.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Noble.....	No.....	No.....	No.....	Yes.....	Yes.....	Yes.....	No.....	American.....	No.....	No.....
Paulding.....	No.....	Yes.....	Children's.....	Yes.....	Yes.....	Yes.....	No.....	National.....	Boys.....	No.....
Perry.....	No.....	No.....	No.....	Yes.....	Yes.....	Yes.....	No.....	National.....	No.....	No.....
Pike.....	No.....	No.....	Children's.....	No.....	Cash.....	Cash.....	No.....	National.....	Boys.....	Yes.....
Portage.....	Yes.....	No.....	Children's.....	No.....	Cash.....	Cash.....	No.....	National.....	Boys.....	No.....
Preble.....	Yes.....	Yes.....	Children's.....	No.....	Books.....	Books.....	No.....	National.....	Boys.....	No.....
Putnam.....	Yes.....	No.....	Children's.....	No.....	Cash.....	Cash.....	No.....	National.....	Boys.....	No.....
Richland.....	No.....	Yes.....	Children's.....	No.....	Books.....	Books.....	No.....	National.....	Boys.....	No.....
Sandusky.....	No.....	Yes.....	Children's.....	No.....	Cash.....	Cash.....	No.....	National.....	Boys.....	No.....
Scioto.....	No.....	No.....	Children's.....	No.....	Books.....	Books.....	No.....	National.....	Boys.....	No.....
Seneca.....	No.....	No.....	Children's.....	No.....	Cash.....	Cash.....	No.....	National.....	Boys.....	No.....
Shelby.....	No.....	Yes.....	Children's.....	No.....	Cash.....	Cash.....	No.....	National.....	Boys.....	Yes.....
Stark.....	No.....	No.....	Children's.....	No.....	Cash.....	Cash.....	No.....	National.....	Boys.....	No.....
Summit.....	Yes.....	No.....	Children's.....	No.....	Cash.....	Cash.....	Yes.....	American.....	No.....	No.....
Tuscarawas.....	Yes.....	No.....	No.....	No.....	Cash.....	Cash.....	Yes.....	National.....	Boys.....	No.....
Union.....	Yes.....	No.....	Children's.....	No.....	Cash.....	Cash.....	Yes.....	National.....	Boys.....	Yes.....
Van Wert.....	No.....	Yes.....	Children's.....	Yes.....	Books.....	Books.....	Yes.....	National.....	No.....	Yes.....
Warren.....	Yes.....	Yes.....	Children's.....	Yes.....	Cash and diplomas.....	Cash and diplomas.....	Yes.....	American.....	No.....	Yes.....
Washington.....	No.....	Yes.....	No.....	Yes.....	Cash.....	Cash.....	No.....	National.....	No.....	No.....
Wayne.....	Yes.....	No.....	Children's.....	No.....	Books.....	Books.....	No.....	National.....	Boys.....	No.....
Williams.....	Yes.....	Yes.....	No.....	Yes.....	Cash.....	Cash.....	No.....	National.....	Boys.....	No.....
Wood.....	No.....	Yes.....	Children's.....	No.....	Cash.....	Cash.....	No.....	National.....	Girls.....	No.....
Wyandot.....	No.....	Yes.....	Children's.....	No.....	Cash.....	Cash.....	No.....	American.....	Girls.....	Yes.....

BULLETIN OF AWARDS

Ohio State Fair 1913

Herein are printed the State Fair winners of 1913. Every award was made upon its merits. The contest was keen.

Competent judges placed the honors. Many worthy animals and articles had to be content without Blue Ribbon honors.

Exhibitors won awards without extravagant boast and accepted defeat without complaint.

The State Fair is a great educational event. Ohio leads in the magnitude of its grounds and Exposition buildings.

Those who are rewarded with its show ring honors have an asset of such value that can nowhere else be obtained.

Ohio State Fair trophies are trade marks of excellence and superiority. A good citizen is behind every prize winner.

The Fair of 1913 surpassed its predecessors. All departments were complete. Each exhibitor took a real interest in the Fair and displayed a willingness to do all things possible to make it a good humored success.

THE AGRICULTURAL COMMISSION OF OHIO,

A. P. SANDLES, *President.*

List of Premium Awards

Ohio State Fair—1913

FIRST DEPARTMENT—HORSES.

JACOB DEAN, in Charge.
C. H. GANSON, Assistant.

G. H. CROW.....Superintendent
R. R. GRIEVE.....Clerk

JUDGES.

GEO. D. KARSNER, FRANK D. WARD, C. A. TOPE, JOHN DICKSON.

Received from stall rent, 1913.....		\$937 00
Premiums offered, 1913.....		3,804 00
Premiums paid, 1913.....		3,846 00
Entries, 1913.....	643	
Animals shown in ring.....	492	
Premiums offered on ponies, 1913.....		\$620 00
Premiums paid, 1913.....		584 00
Entries, 1913.....	98	
Animals shown in ring.....	77	
Premiums offered on mules, 1913.....		\$120 00
Premiums paid, 1913.....		80 00
Entries, 1913.....	6	
Animals shown in ring.....	6	
Paid superintendent, judges, etc., 1913.....		\$650 68
Received from stall rent, 1912.....		\$765 00
Premiums offered, 1912.....		4,361 00
Premiums paid, 1912.....		3,211 00
Total Number of Entries, 1912.....	517	
Premiums offered on ponies, 1912.....		\$620 00
Premiums paid on ponies, 1912.....		580 00
Total Number of Entries, 1912.....	176	
Paid superintendents, judges, etc., 1912.....		\$735 09
Received from stall rent, 1911.....		\$768 50
Premiums offered, 1911.....		4,355 00
Premiums paid, 1911.....		3,267 00
Total Number of Entries, 1911.....	527	
Premiums offered on ponies, 1911.....		\$620 00
Premiums paid on ponies, 1911.....		320 00
Total Number of Entries, 1911.....	40	
Paid superintendent, judges, etc., 1911.....		\$530 10
Received from stall rent, 1910.....		\$1,023 00
Premiums offered, 1910.....		4,355 00
Premiums paid, 1910.....		3,353 00
Total Number of Entries, 1910.....	611	
Premiums offered on ponies, 1910.....		\$620 00
Premiums paid on ponies, 1910.....		608 00
Total Number of Entries, 1910.....	186	
Paid superintendent, judges, etc., 1910.....		\$472 00

ROADSTERS—STANDARD BRED.

JUDGE, GEO. D. KARSNER.

Premiums offered.....		\$390 00
Premiums paid.....		294 00
Entries.....	32	
Animals shown in ring.....	29	

Name.	Postoffice.	Awards.	Amount.
Anna S. Beyerly.....	Sta. B. Columbus, O.....	Best stallion, 4 years old or over.....	\$20 00
W. G. McCurdy.....	Ashley, O.....	2d best stallion 4 years old or over.....	10 00
C. G. Smith.....	Reynoldsburg, O.....	3d best stallion 4 years old or over.....	5 00
D. A. Sprague.....	S. Charleston, O.....	4th best stallion 4 years old or over.....	3 00
C. G. Smith.....	Reynoldsburg, O.....	Best stallion 3 years and under 4.....	20 00
Jas. W. Price.....	Plain City, O.....	Best stallion 2 years old and under 3.....	15 00
W. G. McCurdy.....	Ashley, O.....	2d best stallion 2 years old and under 3.....	8 00
C. G. Smith.....	Ashley, O.....	Best stallion 1 year and under 2.....	15 00
Seymour Smith.....	Pataskala, O.....	Best stallion colt under 1 year.....	10 00
Lee S. Conrad.....	Fulton, O.....	2d best stallion colt under 1 year.....	5 00
Anna S. Beyerly.....	Sta. B. Columbus, O.....	Best mare 4 years old or over.....	20 00
W. G. McCurdy.....	Ashley, O.....	2d best mare 4 years old or over.....	10 00
Wm. Brimbee.....	Marengo, O.....	3d best mare 4 years old or over.....	5 00
Wm. Brimbee.....	Marengo, O.....	4th best mare 4 years old or over.....	3 00
J. W. Masters.....	Edison, O.....	Best mare 3 years and under 4.....	15 00
C. W. Price.....	Radner, O.....	Best mare 2 years and under 3.....	15 00
C. G. Smith.....	Reynoldsburg, O.....	2d best mare 2 years and under 3.....	8 00
D. A. Sprague.....	S. Charleston, O.....	Best filly 1 year old and under 2.....	10 00
C. G. Smith.....	Reynoldsburg, O.....	Best filly colt under 1 year.....	10 00
C. G. Smith.....	Reynoldsburg, O.....	Best gelding 3 years old or over.....	20 00
C. G. Smith.....	Reynoldsburg, O.....	2d best gelding 3 years old or over.....	10 00
W. G. McCurdy.....	Ashley, O.....	Best get of sire.....	20 00
C. G. Smith.....	Reynoldsburg, O.....	2d best get of sire.....	10 00
W. G. McCurdy.....	Ashley, O.....	Best produce of mare.....	15 00
Seymour Smith.....	Pataskala, O.....	2d best produce of mare.....	8 00
C. G. Smith.....	Reynoldsburg, O.....	3d best produce of mare.....	4 00

ROADSTERS—NON-STANDARD.

JUDGE, GEO. D. KARSNER.

Premiums offered.....		\$415 00
Premiums paid.....		392 00
Entries.....	77	
Animals shown in ring.....	62	

Name.	Postoffice.	Awards.	Amount.
A. C. Long.....	Delaware, O.....	Best stallion 4 years old or over.....	\$20 00
B. F. Parsell.....	Reynoldsburg, O.....	2d best stallion 4 years old or over.....	10 00
D. A. Sprague.....	S. Charleston, O.....	3d best stallion 4 years old or over.....	5 00
Mrs. Geo. Malay.....	Columbus, O.....	Best stallion 3 years and under 4.....	20 00
W. S. Robinson.....	Mt. Sterling, O.....	2d best stallion 3 years and under 4.....	10 00
Lee S. Cunard.....	Fulton, O.....	Best stallion 2 years and under 3.....	15 00
D. A. Sprague.....	S. Charleston, O.....	2d best stallion 2 years and under 3.....	8 00
W. S. Robinson.....	Mt. Sterling, O.....	Best stallion 1 year and under 2.....	15 00
W. S. Robinson.....	Mt. Sterling, O.....	2d best stallion 1 year and under 2.....	8 00
Ralph Parsell.....	Reynoldsburg, O.....	3d best stallion 1 year and under 2.....	4 00
A. C. Long.....	Delaware, O.....	Best stallion colt under 1 year.....	10 00
W. S. Robinson.....	Mt. Sterling, O.....	2d best stallion colt under 1 year.....	5 00
J. W. Masters.....	Edison, O.....	3d best stallion colt under 1 year.....	3 00
Lee S. Cunard.....	Fulton, O.....	4th best stallion colt under 1 year.....	2 00
Anna S. Beyerly.....	Columbus, O.....	Best mare 4 years old or over.....	20 00
W. G. McCurdy.....	Ashley, O.....	2d best mare 4 years old or over.....	10 00
C. P. Mitchell.....	Columbus, O.....	3d best mare 4 years old or over.....	5 00
T. F. and T. E. Gordon.....	Mt. Gilead, O.....	4th best mare 4 years old or over.....	3 00
J. L. Dent.....	Columbus, O.....	Best mare 3 years and under 4.....	15 00
Wm. Brimbee.....	Marengo, O.....	2d best mare 3 years and under 4.....	8 00
Jos. W. Price.....	Plain City, O.....	3d best mare 3 years and under 4.....	4 00
W. S. Robinson.....	Mt. Sterling, O.....	4th best mare 3 years and under 4.....	2 00
W. G. McCurdy.....	Ashley, O.....	Best mare 2 years old and under 3.....	15 00
J. L. Dent.....	Columbus, O.....	2d best mare 2 years old and under 3.....	8 00
C. G. Smith.....	Reynoldsburg, O.....	3d best mare 2 years old and under 3.....	4 00
J. W. Masters.....	Edison, O.....	Best filly 1 year and under 2.....	10 00
B. F. Parsell.....	Reynoldsburg, O.....	2d best filly 1 year and under 2.....	5 00
W. S. Robinson.....	Mt. Sterling, O.....	3d best filly 1 year and under 2.....	3 00
B. F. Parsell.....	Reynoldsburg, O.....	4th best filly 1 year and under 2.....	2 00

ROADSTERS—NON-STANDARD—Concluded.

Name.	Postoffice.	Awards.	Amount.
A. C. Long.....	Delaware, O.	Best filly colt under 1 year.....	\$10 00
Lee S. Cunard.....	Fulton, O.	2d best filly colt under 1 year.....	5 00
W. S. Robinson.....	Mt. Sterling, O.	3d best filly colt under 1 year.....	3 00
Anna S. Beyerly.....	Columbus, O.	Best gelding 3 years or over.....	20 00
Wm. Brimbee.....	Marengo, O.	2d best gelding 3 years or over.....	10 00
C. P. Mitchell.....	Columbus, O.	3d best gelding 3 years or over.....	5 00
Smith & Houston.....	London, O.	4th best gelding 3 years or over.....	3 00
W. S. Robinson.....	Mt. Sterling, O.	Best get of sire.....	20 00
B. F. Parsell.....	Reynoldsbu, O.	2d best get of sire.....	10 00
W. S. Robinson.....	Mt. Sterling, O.	3d best get of sire.....	5 00
W. S. Robinson.....	Mt. Sterling, O.	Best produce of mare.....	15 00
B. F. Parsell.....	Reynoldsbu, O.	2d best produce of mare.....	8 00
W. S. Robinson.....	Mt. Sterling, O.	3d best produce of mare.....	4 00
A. C. Long.....	Delaware, O.	Champion roadster, stallion, any age.....	25 00

FINE HARNESS HORSES.

JUDGE, FRANK D. WARD.

Premiums offered.....	\$344.00
Premiums paid.....	344.00
Entries.....	103
Animals shown in ring.....	74

Name.	Postoffice.	Awards.	Amount.
Lonzo McClain & Sons.....	Lima, O.	Best stallion 4 years old or over.....	\$20 00
Anna S. Beyerly.....	Columbus, O.	2d best stallion 4 years old or over.....	10 00
C. G. Smith.....	Reynoldsbu, O.	3d best stallion 4 years old or over.....	5 00
C. G. Smith.....	Reynoldsbu, O.	Best stallion 3 years and under 4.....	20 00
Mrs. Geo. Malay.....	Columbus, O.	2d best stallion 3 years and under 4.....	10 00
Jas. W. Robinson.....	Mt. Sterling, O.	3d best stallion 3 years and under 4.....	5 00
D. A. Sprague.....	Plain City, O.	Best stallion 2 years and under 3.....	15 00
W. G. McCurdy.....	S. Charleston, O.	2d best stallion 2 years and under 3.....	8 00
W. S. Robinson.....	Ashley, O.	3d best stallion 2 years and under 3.....	4 00
W. S. Robinson.....	Mt. Sterling, O.	Best stallion 1 year and under 2.....	15 00
W. S. Robinson.....	Mt. Sterling, O.	2d best stallion 1 year and under 2.....	8 00
Ralph Parsell.....	Reynoldsbu, O.	3d best stallion 1 year and under 2.....	4 00
W. G. McCurdy.....	Ashley, O.	Best stallion with 3 of his get, of either sex, etc.....	25 00
Wm. Brimbee.....	Marengo, O.	Best mare or gelding 4 years old or over.....	20 00
Anna S. Beyerly.....	Columbus, O.	2d best mare or gelding 4 years old or over.....	10 00
J. Y. Bassell.....	Columbus, O.	3d best mare or gelding 4 years old or over.....	5 00
Chas. Tregg.....	Delaware, O.	Best mare or gelding 3 years and under 4.....	20 00
Anna S. Beyerly.....	Columbus, O.	2d best mare or gelding 3 years and under 4.....	10 00
J. W. Masters.....	Edison, O.	3d best mare or gelding 3 years and under 4.....	5 00
W. G. McCurdy.....	Ashley O.	Best mare or gelding 2 years and under 3.....	15 00
Jno. W. Britton.....	Columbus, O.	2d best mare or gelding 2 years and under 3.....	8 00
C. W. Price.....	Radnor, O.	3d best mare or gelding 2 years and under 3.....	4 00
J. W. Masters.....	Edison, O.	Best filly 1 year and under 2.....	15 00
W. S. Robinson.....	Mt. Sterling, O.	2d best filly 1 year and under 2.....	8 00
B. F. Parsell.....	Reynoldsbu, O.	3d best filly 1 year and under 2.....	4 00
Low Ridge Farm.....	Mentor, O.	Best mare with foal of either sex.....	25 00
A. C. Long.....	Delaware, O.	Best foal under 1 year, either sex.....	10 00
A. C. Long.....	Delaware, O.	2d best foal under 1 year, either sex.....	4 00
Low Ridge Farm.....	Mentor, O.	3d best foal under 1 year, either sex.....	2 00
C. P. Mitchell.....	Columbus, O.	Best carriage team, gelding or mare.....	15 00
Anna S. Beyerly.....	Columbus, O.	2d best carriage team, gelding or mare.....	10 00
C. G. Smith.....	Reynoldsbu, O.	3d best carriage team, gelding or mare.....	5 00

FRENCH AND GERMAN COACH.

JUDGE, FRANK D. WARD.

Premiums offered.....	\$345 00
Premiums paid.....	191 00
Entries.....	20
Animals shown in ring.....	18

Name.	Postoffice.	Awards.	Amount.
Wm. Howisher & Son.....	Sidney, O.	Best stall on 4 years old or over.....	\$20 00
Geo. W. Crawford.....	Newark, O.	2d best stallion 4 years old or over.....	10 00

FRENCH AND GERMAN COACH—Concluded.

Name.	Postoffice.	Awards.	Amount.
Lee S. Cunard.....	Fulton, O.....	Best stallion 2 years old and under 3.....	\$15 00
W. G. McCurdy.....	Ashley, O.....	2d best stallion 2 years old and under 3.....	8 00
White Star Stock Farm.....	Sunbury, O.....	Best stallion 1 year and under 2.....	15 00
Lee S. Cunard.....	Fulton, O.....	Best stallion colt under 1 year.....	10 00
Alonzo Baker.....	Marengo, O.....	Best mare 4 years old or over.....	20 00
F. G. Brown.....	Cardington, O.....	2d best mare 4 years old or over.....	10 00
White Star Stock Farm.....	Sunbury, O.....	Best mare 3 years and under 4.....	20 00
White Star Stock Farm.....	Sunbury, O.....	Best mare 2 years and under 3.....	15 00
M. M. Chaffin.....	Pataskala, O.....	2d best mare 2 years and under 3.....	8 00
Lee S. Cunard.....	Fulton, O.....	Best filly 1 year and under 2.....	10 00
Lee S. Cunard.....	Fulton, O.....	Best filly colt under 1 year.....	10 00
White Star Stock Farm.....	Sunbury, O.....	Produce of mare.....	20 00
Wm. Hershey.....	Sunbury, O.....	Champion stallion, any age.....	Ribbon.
White Star Stock Farm.....	Sunbury, O.....	Champion mare, any age.....	Ribbon.

BELGIAN.

JUDGES, FRANK D. WARD, C. A. TOPE.

Premiums offered.....		\$538 00
Premiums paid.....		438 00
Entries.....	55	
Animals shown in ring.....	48	

Name.	Postoffice.	Awards.	Amount.
Bell Bros.....	Wooster, O.....	Best stallion 4 years old or over.....	\$20 00
Wm. Howisher & Son.....	Sidney, O.....	2d best stallion 4 years old or over.....	15 00
Geo. W. Crawford.....	Newark, O.....	3d best stallion 4 years old or over.....	10 00
Geo. W. Crawford.....	Newark, O.....	4th best stallion 4 years old or over.....	5 00
Bell Bros.....	Wooster, O.....	Best stallion 3 years old and under 4.....	20 00
Bell Bros.....	Wooster, O.....	2d best stallion 3 years and under 4.....	15 00
Geo. W. Crawford.....	Newark, O.....	3d best stallion 3 years and under 4.....	10 00
Geo. W. Crawford.....	Newark, O.....	4th best stallion 3 years and under 4.....	5 00
Bell Bros.....	Wooster, O.....	Best stallion 2 years and under 3.....	15 00
Bell Bros.....	Wooster, O.....	2d best stallion 2 years and under 3.....	12 00
Lonzo McClain & Sons.....	Lima, O.....	3d best stallion 2 years and under 3.....	9 00
Bell Bros.....	Wooster, O.....	4th best stallion 2 years and under 3.....	4 00
Morrow B. Wilson.....	London, O.....	Best stallion 1 year and under 2.....	15 00
Wm. Howisher & Son.....	Sidney, O.....	2d best stallion 1 year and under 2.....	12 00
Wm. Howisher & Son.....	Sidney, O.....	Best stallion colt under 1 year.....	10 00
Morrow B. Wilson.....	London, O.....	2d best stallion colt under 1 year.....	8 00
C. N. Price.....	Radnor, O.....	3d best stallion colt under 1 year.....	5 00
Wm. Howisher & Son.....	Sidney, O.....	Best mare 4 years old or over.....	20 00
Morrow B. Wilson.....	London, O.....	2d best mare 4 years old or over.....	15 00
C. N. Price.....	Radnor, O.....	3d best mare 4 years old or over.....	10 00
Bell Bros.....	Wooster, O.....	Best mare 2 years and under 3.....	15 00
Bell Bros.....	Wooster, O.....	2d best mare 2 years and under 3.....	12 00
Wm. Howisher & Son.....	Sidney, O.....	Best filly 1 year and under 2.....	10 00
Wm. Howisher & Son.....	Sidney, O.....	2d best filly and under 2.....	8 00
Morrow B. Wilson.....	London, O.....	3d best filly 1 year and under 2.....	5 00
Wm. Howisher & Son.....	Sidney, O.....	4th best filly 1 year and under 2.....	3 00
Morrow B. Wilson.....	London, O.....	Best filly colt under 1 year.....	10 00
Bell Bros.....	Wooster, O.....	Best get of sire.....	30 00
Wm. Howisher & Son.....	Sidney, O.....	2d best get of sire.....	20 00
Morrow B. Wilson.....	London, O.....	3d best get of sire.....	15 00
Bell Bros.....	Wooster, O.....	Best produce of mare.....	30 00
Morrow B. Wilson.....	London, O.....	2d best produce of mare.....	20 00
Wm. Howisher & Son.....	Sidney, O.....	3d best produce of mare.....	15 00
Morrow B. Wilson.....	London, O.....	4th best produce of mare.....	10 00
Bell Bros.....	Wooster, O.....	Champion stallion, any age.....	Ribbon.
Bell Bros.....	Wooster, O.....	Champion mare, any age.....	Ribbon.

PERCHERONS.

JUDGE, FRANK D. WARD.

Premiums offered		\$538 00
Premiums paid		523 00
Entries	128	
Animals shown in ring	90	

Name.	Postoffice.	Awards.	Amount.
Bell Bros.	Wooster, O.	Best stallion 4 years old or over	\$20 00
W. W. Ferguson	Delaware, O.	2d best stallion 4 years old or over	15 00
Smith & Houston	London, O.	3d best stallion 4 years old or over	10 00
Geo. W. Crawford	Newark, O.	4th best stallion 4 years old or over	5 00
Bell Bros.	Wooster, O.	Best stallion 3 years and under 4	20 00
Geo. W. Crawford	Newark, O.	2d best stallion 3 years and under 4	15 00
Geo. S. Ringer	Rockfield, Ind.	3d best stallion 3 years and under 4	10 00
Bell Bros.	Wooster, O.	Best stallion 2 years and under 3	15 00
Bell Bros.	Wooster, O.	2d best stallion 2 years and under 3	12 00
Pullington & Gugel	Milford Center, O.	3d best stallion 2 years and under 3	9 00
Bell Bros.	Wooster, O.	4th best stallion 2 years and under 3	4 00
M. E. Lyons	Delaware, O.	Best stallion 1 year and under 2	15 00
M. E. Roberts	S. Charleston, O.	2d best stallion 1 year and under 2	12 00
T. F. and T. E. Gordon	Mt. Gilead, O.	3d best stallion 1 year and under 2	9 00
Turner Bros.	Mt. Gilead, O.	4th best stallion 1 year and under 2	4 00
B. L. Robinson	Unionville, O.	Best stallion colt under 1 year	10 00
H. M. Saxbe & Co.	Urbana, O.	2d best stallion colt under 1 year	8 00
B. L. Robinson	Unionville, O.	3d best stallion colt under 1 year	5 00
H. M. Saxbe & Co.	Urbana, O.	4th best stallion colt under 1 year	3 00
Bell Bros.	Wooster, O.	Best mare 4 years old or over	20 00
H. V. Cowgill	Delaware, O.	2d best mare 4 years old or over	15 00
C. A. Randolph	Fowler, Ind.	3d best mare 4 years old or over	10 00
Chas. Kunze	Delaware, O.	4th best mare 4 years old or over	5 00
C. N. Price	Radnor, O.	Best mare 3 years and under 4	15 00
Bell Bros.	Wooster, O.	2d best mare 3 years and under 4	12 00
H. V. Cowgill	Plain City, O.	3d best mare 3 years and under 4	9 00
C. A. Randolph	Fowler, Ind.	4th best mare 3 years and under 4	4 00
Bell Bros.	Wooster, O.	Best mare 2 years and under 3	15 00
White Star Stock Farm	Sunbury, O.	2d best mare 2 years and under 3	12 00
Lonso McLain & Son	Lima, O.	3d best mare 2 years and under 3	9 00
Lonso McLain & Son	Lima, O.	4th best mare 2 years and under 3	4 00
G. A. Dix	Delaware, O.	Best filly 1 year and under 2	10 00
O. H. Pollock	Delaware, O.	2d best filly 1 year and under 2	8 00
C. W. Bainbridge	Payne, O.	3d best filly 1 year and under 2	5 00
Geo. S. Ringer	Rockfield, Ind.	4th best filly 1 year and under 2	3 00
G. A. Robinson	Milford Center, O.	Best filly colt under 1 year	10 00
M. E. Roberts	S. Charleston, O.	2d best filly colt under 1 year	8 00
B. L. Robinson	Unionville, O.	3d best filly colt under 1 year	5 00
M. E. Roberts	S. Charleston, O.	4th best filly colt under 1 year	3 00
C. A. Randolph	Fowler, Ind.	Best get of sire	30 00
Bell Bros.	Wooster, O.	2d best get of sire	20 00
B. L. Robinson	Unionville Center, O.	3d best get of sire	15 00
C. A. Randolph	Fowler, Ind.	Best produce of mare	30 00
M. E. Roberts	S. Charleston, O.	2d best produce of mare	20 00
G. A. Dix	Delaware, O.	3d best produce of mare	15 00
G. S. Ranger	Rockfield, Ind.	4th best produce of mare	10 00
Bell Bros.	Wooster, O.	Champion stallion, any age	Ribbon.
Bell Bros.	Wooster, O.	Champion mare, any age	Ribbon.

AMERICAN BRED DRAFT.

JUDGES, FRANK D. WARD, JOHN DICKSON, C. A. TOPE.

Premiums offered		\$639 00
Premiums paid		639 00
Entries	142	
Animals shown in ring	114	

Name.	Postoffice.	Awards.	Amount.
C. A. Randolph	Fowler, Ind.	Best stallion 4 years old or over	\$40 00
Daniel Longendelpher	Troy, O.	2d best stallion 4 years old or over	20 00
J. R. Rittenhouse	Mahomet, Ill.	3d best stallion 4 years old or over	10 00
Roberts & Rothrock	Monticello, Ind.	4th best stallion 4 years old or over	5 00
C. A. Randolph	Fowler, Ind.	Best stallion 3 years and under 4	40 00
R. D. McGonigle	Ashley, O.	2d best stallion 3 years and under 4	20 00
C. A. Randolph	Fowler, Ind.	3d best stallion 3 years and under 4	10 00
C. A. Randolph	Fowler, Ind.	4th best stallion 3 years and under 4	5 00

AMERICAN BRED DRAFT—Concluded.

Name.	Postoffice.	Awards.	Amount.
J. R. Rittenhouse.....	Mahomet, Ill.....	Best stallion 2 years old and under 3.....	\$20 00
M. E. Lyons.....	Delaware, O.....	2d best stallion 2 years old and under 3.....	10 00
G. A. Dix.....	Delaware, O.....	3d best stallion 2 years old and under 3.....	5 00
Frank Grosamar.....	Galena, O.....	4th best stallion 2 years old and under 3.....	3 00
Daniel Longendelfer.....	Troy, O.....	Best stallion 1 year and under 2.....	20 00
W. W. Ferguson.....	Delaware, O.....	2d best stallion 1 year and under 2.....	10 00
C. F. Camp.....	Homerville, O.....	3d best stallion 1 year and under 2.....	5 00
M. M. Chaffin.....	Pataskala, O.....	4th best stallion 1 year and under 2.....	3 00
G. A. Dix.....	Delaware, O.....	Best stallion colt under 1 year.....	15 00
J. R. Rittenhouse.....	Mahomet, Ill.....	2d best stallion colt under 1 year.....	10 00
Ernest Pendleton.....	Delaware, O.....	3d best stallion colt under 1 year.....	5 00
J. D. Rittenhouse.....	Mahomet, Ill.....	4th best stallion colt under 1 year.....	2 00
C. A. Randolph.....	Fowler, Ind.....	Best mare 4 years old or over.....	40 00
C. A. Randolph.....	Fowler, Ind.....	2d best mare 4 years old or over.....	20 00
Ino. Rittenhouse.....	Mahomet, Ill.....	3d best mare 4 years old or over.....	10 00
C. W. Humes & Son.....	Delaware, O.....	4th best mare 4 years old or over.....	5 00
Wm. Stanton.....	Ashley, O.....	Best mare 3 years and under 4.....	20 00
Daniel Longendelfer.....	Troy, O.....	2d best mare 3 years and under 4.....	10 00
C. M. Jones.....	Plain City, O.....	3d best mare 3 years and under 4.....	5 00
Roberts & Rothrock.....	Monticello, Ind.....	4th best mare 3 years and under 4.....	3 00
C. F. Camp.....	Homerville, O.....	Best mare 2 years and under 3.....	20 00
Daniel Longendelfer.....	Troy, O.....	2d best mare 2 years and under 3.....	10 00
White Star Stock Farm.....	Sunbury, O.....	3d best mare 2 years and under 3.....	5 00
J. A. Stalter.....	Pataskala, O.....	4th best mare 2 years and under 3.....	3 00
G. C. Long.....	Cardington, O.....	Best filly under 1 year and under 2.....	15 00
C. W. Bainbridge.....	Payne, O.....	2d best filly 1 year and under 2.....	10 00
Daniel Longendelfer.....	Troy, O.....	3d best filly 1 year and under 2.....	5 00
C. F. Camp.....	Homerville, O.....	4th best filly 1 year and under 2.....	2 00
C. W. Humes & Son.....	Delaware, O.....	Best filly colt under 1 year.....	12 00
J. R. Rittenhouse.....	Mahomet, Ill.....	2d best filly colt under 1 year.....	6 00
C. M. Jones.....	Plain City, O.....	3d best filly colt under 1 year.....	3 00
Roberts & Rothrock.....	Monticello, Ind.....	4th best filly colt under 1 year.....	2 00
C. A. Randolph.....	Fowler, Ind.....	Best get of sire.....	50 00
Lyons & Ferguson.....	Delaware, O.....	2d best get of sire.....	25 00
Daniel Longendelfer.....	Troy, O.....	3d best get of sire.....	15 00
W. W. Ferguson.....	Delaware, O.....	4th best get of sire.....	10 00
C. A. Randolph.....	Fowler, Ind.....	Best produce of mare.....	40 00
C. A. Randolph.....	Fowler, Ind.....	2d best produce of mare.....	20 00
Daniel Longendelfer.....	Troy, O.....	3d best produce of mare.....	10 00
M. E. Lyons.....	Delaware, O.....	4th best produce of mare.....	5 00
C. A. Randolph.....	Fowler, Ind.....	Champion stallion, any age.....	Ribbon.
C. A. Randolph.....	Fowler, Ind.....	Champion mare, any age.....	Ribbon.

GRADE DRAFT.

JUDGE, FRANK D. WARD.

Premiums offered.....	\$105 00
Premiums paid.....	100 00
Entries.....	16
Animals shown in ring.....	13

Name.	Postoffice.	Awards.	Amount.
Lyons & Ferguson.....	Delaware, O.....	Best gelding or mare 4 years old or over.....	\$12 00
F. A. Burwell.....	Sunbury, O.....	2d best gelding or mare 4 years old or over.....	6 00
Lyons & Ferguson.....	Delaware, O.....	3d best gelding or mare 4 years old or over.....	2 00
Wm. Stanton.....	Ashley, O.....	Best gelding or mare 3 years and under 4.....	12 00
Roberts & Rothrock.....	Monticello, Ind.....	2d best gelding or mare 3 years and under 4.....	6 00
C. C. Coyner.....	Delaware, O.....	3d best gelding or mare 3 years and under 4.....	2 00
Smith & Houston.....	London, O.....	Best gelding or mare, any age.....	15 00
Wm. Stanton.....	Ashley, O.....	2d best gelding or mare, any age.....	10 00
F. A. Burwell.....	Sunbury, O.....	3d best gelding or mare, any age.....	5 00
F. A. Burwell.....	Sunbury, O.....	Best matched team in harness to appropriate vehicle.....	20 00
C. C. Coyner.....	Delaware, O.....	2d best matched team in harness to appropriate vehicle.....	10 00

SADDLE HORSES.

JUDGE, GEO. D. KARSNER.

Premiums offered.....		\$315 00
Premiums paid.....		305 00
Entries.....	47	
Animals shown in ring.....	31	

Name.	Postoffice.	Awards.	Amount.
A. C. Long.....	Delaware, O.....	Best stallion, any age.....	\$20 00
W. S. Robinson.....	Mt. Sterling, O.....	2d best stallion, any age.....	10 00
A. C. Long.....	Delaware, O.....	3d best stallion, any age.....	5 00
W. S. Robinson.....	Mt. Sterling, O.....	Best mare or gelding not under 15 hands nor over 15½.....	20 00
C. P. Mitchell.....	Columbus, O.....	2d best mare or gelding not under 15 hands nor over 15½.....	10 00
F. E. Corkwell.....	Newark, O.....	3d best mare or gelding not under 15 hands nor over 15½.....	5 00
J. Y. Bassell.....	Columbus, O.....	Best mare or gelding over 15½.....	20 00
W. S. Robinson.....	Mt. Sterling, O.....	2d best mare or gelding over 15½.....	10 00
W. S. Robinson.....	Mt. Sterling, O.....	3d best mare or gelding over 15½.....	5 00

THREE GAITED HORSES.

Name.	Postoffice.	Awards.	Amount.
A. C. Long.....	Delaware, O.....	Best stallion, any age.....	\$20 00
W. S. Robinson.....	Mt. Sterling, O.....	2d best stallion, any age.....	10 00
Low Ridge Farm.....	Mentor, O.....	3d best stallion, any age.....	5 00
C. P. Mitchell.....	Columbus, O.....	Best mare or gelding not under 15 hands nor over 15½.....	20 00
C. P. Mitchell.....	Columbus, O.....	2d best mare or gelding not under 15 hands nor over 15½.....	10 00
C. P. Mitchell.....	Columbus, O.....	Best mare or gelding over 15½.....	20 00
C. P. Mitchell.....	Columbus, O.....	2d best mare or gelding over 15½.....	10 00
F. I. Brown.....	Athens, O.....	3d best mare or gelding over 15½.....	5 00

COMBINED SADDLE AND HARNESS HORSES.

Name.	Postoffice.	Awards.	Amount.
A. C. Long.....	Delaware, O.....	Best stallion of any age.....	\$20 00
W. S. Robinson.....	Mt. Sterling, O.....	2d best stallion of any age.....	10 00
Low Ridge Farm.....	Mentor, O.....	3d best stallion of any age.....	5 00
C. P. Mitchell.....	Columbus, O.....	Best mare of any age.....	20 00
C. P. Mitchell.....	Columbus, O.....	2d best mare of any age.....	10 00
J. Y. Bassell.....	Columbus, O.....	3d best mare of any age.....	5 00
C. P. Mitchell.....	Columbus, O.....	Best gelding of any age.....	20 00
F. E. Corkwell.....	Newark, O.....	2d best gelding of any age.....	10 00

HEAVY HARNESS CLASS.

JUDGE, FRANK D. WARD.

Premiums offered.....		\$175 00
Premiums paid.....		120 00
Entries.....	19	
Animals shown in ring.....	11	

Name.	Postoffice.	Awards.	Amount.
C. P. Mitchell.....	Columbus, O.....	Best stallion, mare or gelding not under 15 and not over 15½ hands.....	\$20 00
C. P. Mitchell.....	Columbus, O.....	Best stallion, mare or gelding over 15½ hands.....	20 00
C. G. Smith.....	Reynoldsburg, O.....	2d best stallion, mare or gelding over 15½ hands.....	10 00
Alonso Baker.....	Marengo, O.....	3d best stallion, mare or gelding over 15½ hands.....	5 00

HEAVY HARNESS CLASS—Concluded.

Name.	Postoffice.	Awards.	Amount.
C. P. Mitchell.....	Columbus, O.....	Best pair of mares or geldings not over 15½ hands.....	\$20 00
White Star Stock Farm.....	Sunbury, O.....	2d best pair of mares or geldings not over 15½ hands.....	10 00
C. G. Smith.....	Reynoldsburg, O.....	Best pair of mares or geldings over 15½ hands.....	20 00
C. A. Randolph.....	Fowler, Ind.....	2d best pair of mares or geldings over 15½ hands.....	10 00
Jno. R. Rittenhouse.....	Mahomet, Ill.....	3d best pair of mares or geldings over 15½ hands.....	5 00

UTILITY CLASS.

JUDGES, C. A. TOPE, FRANK D. WARD.

Premiums offered.....Silver Cup, Silver Medal and Ribbon.
 Entries.....4
 Animals shown in ring.....2

Name.	Postoffice.	Awards.	Amount.
C. N. Price.....	Radnor, O.....	Best double team and delivery or transfer wagon.....	Sil. cup
C. N. Price.....	Radnor, O.....	Best single horse and delivery wagon.....	Sil. cup

SHETLAND PONIES.

JUDGE, GEO. D. KARSNER.

Premiums offered.....\$440 00
 Premiums paid.....418 00
 Entries.....69
 Animals shown in ring.....56

Name.	Postoffice.	Awards.	Amount.
C. E. Bunn.....	Peoria, Ill.....	Best stallion 4 years old or over.....	\$15 00
C. E. Bunn.....	Peoria, Ill.....	2d best stallion 4 years old or over.....	10 00
Logan W. Black.....	Jacksonville, Ill.....	3d best stallion 4 years old or over.....	5 00
Kahler & Justice.....	Plain City, O.....	Best stallion 3 years and under 4.....	15 00
Logan W. Black.....	Jacksonville, Ill.....	2d best stallion 3 years and under 4.....	10 00
C. E. Bunn.....	Peoria, Ill.....	3d best stallion 3 years and under 4.....	5 00
Logan W. Black.....	Jacksonville, Ill.....	Best stallion 2 years and under 3.....	12 00
C. E. Bunn.....	Peoria, Ill.....	2d best stallion 2 years and under 3.....	6 00
Logan W. Black.....	Jacksonville, Ill.....	Best stallion 1 year and under 2.....	12 00
C. E. Bunn.....	Peoria, Ill.....	2d best stallion 1 year and under 2.....	6 00
Logan W. Black.....	Jacksonville, Ill.....	3d best stallion 1 year and under 2.....	4 00
Kahler & Justice.....	Plain City, O.....	Best stallion colt under 1 year.....	10 00
C. E. Bunn.....	Peoria, Ill.....	Best mare 4 years old or over.....	15 00
Logan W. Black.....	Jacksonville, Ill.....	2d best mare 4 years old or over.....	10 00
C. E. Bunn.....	Peoria, Ill.....	3d best mare 4 years old or over.....	5 00
Logan W. Black.....	Jacksonville, Ill.....	Best mare 3 years and under 4.....	15 00
C. E. Bunn.....	Peoria, Ill.....	2d best mare 3 years and under 4.....	10 00
Logan W. Black.....	Jacksonville, Ill.....	3d best mare 3 years and under 4.....	5 00
Logan W. Black.....	Jacksonville, Ill.....	Best mare 2 years and under 3.....	12 00
C. E. Bunn.....	Peoria, Ill.....	2d best mare 2 years and under 3.....	6 00
Logan W. Black.....	Jacksonville, Ill.....	3d best mare 2 years and under 3.....	4 00
C. E. Bunn.....	Peoria, Ill.....	Best filly 1 year and under 2.....	12 00
Logan W. Black.....	Jacksonville, Ill.....	2d best filly 1 year and under 2.....	6 00
Kahler & Justice.....	Plain City, O.....	3d best filly 1 year and under 2.....	4 00
C. E. Bunn.....	Peoria, Ill.....	Best filly colt under 1 year.....	10 00
Logan W. Black.....	Jacksonville, Ill.....	2d best filly colt under 1 year.....	5 00
C. E. Bunn.....	Peoria, Ill.....	Best herd of 10 head.....	15 00
Logan W. Black.....	Jacksonville, Ill.....	2d best herd of 10 head.....	10 00
C. E. Bunn.....	Peoria, Ill.....	Best sire and get.....	15 00
Logan W. Black.....	Jacksonville, Ill.....	2d best sire and get.....	5 00
Logan W. Black.....	Jacksonville, Ill.....	Best mare and produce.....	15 00
C. E. Bunn.....	Peoria, Ill.....	2d best mare and produce.....	5 00
Kahler & Justice.....	Plain City, O.....	3d best mare and produce.....	3 00

IN HARNESS TO APPROPRIATE VEHICLE.

Name.	Postoffice.	Awards.	Amount.
C. E. Bunn.....	Peoria, Ill.....	Best single turnout.....	\$15 00
C. E. Bunn.....	Peoria, Ill.....	2d best single turnout.....	8 00
Logan W. Black.....	Jacksonville, Ill.....	3d best single turnout.....	4 00
C. E. Bunn.....	Peoria, Ill.....	Best double team turnout.....	15 00
Logan W. Black.....	Jacksonville, Ill.....	2d best double team turnout.....	8 00
Logan W. Black.....	Jacksonville, Ill.....	3d best double team turnout.....	4 00
C. E. Bunn.....	Jacksonville, Ill.....	Best four-in-hand or abreast.....	15 00
W. G. McCurdy.....	Peoria, Ill.....	2d best four-in-hand or abreast.....	15 00
C. E. Bunn.....	Ashley, O.....	Best pony under saddle.....	10 00
Logan W. Black.....	Peoria, Ill.....	2d best pony under saddle.....	5 00
C. E. Bunn.....	Jacksonville, Ill.....	3d best pony under saddle.....	2 00
Logan W. Black.....	Peoria, Ill.....	Best tandem or three abreast.....	15 00
Logan W. Black.....	Jacksonville, Ill.....	2d best tandem or three abreast.....	8 00
Logan W. Black.....	Jacksonville, Ill.....	3d best tandem or three abreast.....	4 00

PONIES OTHER THAN SHETLAND.

JUDGE, GEO. D. KARSNER.

Premiums offered.....	\$180 00
Premiums paid.....	166 00
Entries.....	20
Animals shown in ring.....	21

Name.	Postoffice.	Awards.	Amount.
C. E. Bunn.....	Peoria, Ill.....	Best stallion 3 years old or over.....	\$20 00
C. E. Bunn.....	Peoria, Ill.....	2d best stallion 3 years old or over.....	10 00
C. C. Hunter.....	Mt. Vernon, O.....	3d best stallion 3 years old or over.....	Ribbon.
C. E. Bunn.....	Peoria, Ill.....	Best stallion 2 years and under 3.....	12 00
C. E. Bunn.....	Peoria, Ill.....	2d best stallion 2 years and under 3.....	6 00
C. E. Bunn.....	Peoria, Ill.....	Best mare 3 years old or over.....	20 00
C. E. Bunn.....	Peoria, Ill.....	2d best mare 3 years old or over.....	10 00
C. E. Bunn.....	Peoria, Ill.....	3d best mare 3 years old or over.....	Ribbon.
C. E. Bunn.....	Peoria, Ill.....	Best mare 2 years and under 3.....	12 00

IN HARNESS TO APPROPRIATE VEHICLE.

Name.	Postoffice.	Awards.	Amount.
C. E. Bunn.....	Peoria, Ill.....	Best single turnout.....	\$15 00
C. E. Bunn.....	Peoria, Ill.....	2d best single turnout.....	8 00
C. E. Bunn.....	Peoria, Ill.....	3d best single turnout.....	Ribbon.
C. E. Bunn.....	Peoria, Ill.....	Best double team turnout.....	15 00
C. E. Bunn.....	Peoria, Ill.....	2d best double team turnout.....	8 00
C. E. Bunn.....	Peoria, Ill.....	Best four-in-hand or abreast.....	15 00
C. E. Bunn.....	Peoria, Ill.....	Best pony under saddle.....	10 00
C. E. Bunn.....	Peoria, Ill.....	2d best pony under saddle.....	5 00

MULES.

Premiums offered.....	\$120 00
Premiums paid.....	80 00
Entries.....	6
Animals shown in ring.....	6

Name.	Postoffice.	Awards.	Amount.
Jerry P. Bliss.....	Columbus, O.....	Best mare mule, any age.....	\$15 00
Jerry P. Bliss.....	Columbus, O.....	2d best mare mule, any age.....	10 00
Porter Bros.....	Zanesville, O.....	3d best mare mule, any age.....	5 00
Jerry P. Bliss.....	Columbus, O.....	Best pair of mules 3 years old or over shown to wagon.....	30 00
Porter Bros.....	Zanesville, O.....	2d best pair of mules 3 years old or over, shown to wagon.....	20 00

WINNERS IN SPEED CONTESTS.

2:15 TROTTING—PURSE \$800.

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
T. E. Caldwell.....	Warren, O.....	Capital Medium.....	2 1 1 1	\$400 00
J. T. Wilson.....	Columbus, O.....	Teddy Brooks.....	1 3 3 3	200 00
C. A. Valentine.....	Columbus, O.....	Minor Bell.....	3 2 2 2	120 00

Time—2:16½, 2:14½, 2:14½, 2:14½

2:13 PACE—PURSE \$1000

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
A. M. Rathburn.....	Syracuse, N. Y.....	Baron Alcyone.....	1 1 1 1	\$500 00
Harry E. Bell.....	Cincinnati, O.....	Dan B.....	2 2 3	250 00
C. W. Hole.....	Celina, O.....	Hal Leaf.....	3 3 2	150 00
J. J. Hinamon.....	Marion, O.....	Bonnie J.....	4 5 4	100 00

Time—2:10½ 2:10½, 2:10½

2:35 TROT—PURSE \$500

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
Oscar Vallery.....	Derby, O.....	Royal Cadet.....	1 1 1	\$250 00
Nat Ray.....	Toronto, Can.....	J. Worthy.....	2 2 2	125 00
C. P. Parker.....	Niles, Mich.....	Alice Blaxtell.....	3 3 4	75 00
W. J. Rausch.....	Marysville, O.....	Mo Kinney.....	5 5 3	50 00

Time—2:20, 2:16½, 2:22.

2:20 PACE—PURSE \$500.

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
Oscar Vallery.....	Derby, O.....	Hot Ball.....	1 1 1	\$250 00
M. L. Handley.....	Richwood, O.....	Tom H.....	2 2 2	125 00
D. M. Bell.....	Delaware, O.....	Gerinomo.....	3 5 3	75 00
Patterson Bros.....	Piketon, O.....	Christabell.....	6 3 4	50 00

Time—2:11½, 2:12½, 2:12½.

2:10 TROT—PURSE \$1000.

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
H. T. Horine.....	Lexington, Ky.....	Country Tramp.....	1 1 1	\$500 00
Rody Patterson, Agt.....	Columbus, O.....	Moko Dillard.....	3 2 2	250 00
D. H. Valentine.....	Columbus, O.....	Rose Leaf Victor.....	2 3 3	150 00
J. Hetzel.....	Portsmouth, O.....	Mack Jay.....	4 4 4	100 00

Time—2:15½, 2:13½, 2:15½.

2:26 PACE—PURSE \$500.

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
B. F. Cronley.....	Mt. Victory, O.....	Dandy K.....	1 1 1	\$250 00
A. A. Crooks.....	Marion, O.....	Doctor S.....	2 2 4	125 00
W. M. Bedell.....	Fremont, O.....	Gietchiemamto, Jr.....	5 6 2	75 00
J. S. Wilson.....	Coalton, O.....	Harold Bell.....	4 5 3	50 00

Time—2:15½, 2:15½, 2:14½.

2:18 TROT—PURSE \$800.

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
G. F. Conley.....	Eaton, O.....	The Kentuckian.....	8 8 5 1 1	\$400 00
H. T. Horine.....	Lexington, Ky.....	Mary Brown.....	5 2 1 2 2	200 00
T. T. Rhodes.....	Coalton, O.....	Chiefess.....	3 1 2 6 3	120 00
W. M. Bedell.....	Fremont, O.....	Mildred McKerron.....	1 4 3 4 4	80 00

Time—2:16½, 2:17½, 2:15½, 2:17½, 2:16½.

2:15 PACE—PURSE \$1000.

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
C. H. Hayes.....	Columbus, O.....	Cleo B.....	3 7 1 1 1	\$500 00
Geo. Kyger.....	Oxford, O.....	Polly Ann.....	1 1 2 2 2	250 00
Peter Shaw.....	Wilmington, O.....	Helen Taft.....	2 2 6 3 4	150 00
John Harris.....	Melvin, O.....	Teddy Strathmore.....	4 3 4 4 3	100 00

Time—2:11½, 2:11½, 2:09½, 2:11½, 2:15½.

2:25 TROT—PURSE \$600.

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
Oscar Valley.....	Derby, O.....	Royal Cadet.....	1 1 1	\$300 00
Parlee Mitchell.....	Findlay, O.....	Crown King.....	2 2 6	150 00
Wm. Majors.....	Columbus, O.....	Alexander M.....	6 7 2	90 00
A. O. Rhodes.....	Athens, O.....	Morning Bell.....	4 3 3	60 00

Time—2:16½, 2:15½, 2:20.

2:10 PACE—PURSE \$800.

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
C. A. Valentine.....	Columbus, O.....	Michigan Queen.....	5 6 1 2 1	\$400 00
R. J. McBride.....	Toronto, Can.....	Nettie Ethan.....	3 2 2 1 2	200 00
Ed. Tyrell.....	Marysville, O.....	Dwight Logan.....	2 3 4 3 3	120 00
H. Singer.....	Cardington, O.....	Lowanda.....	4 6 3	80 00

Time—2:09½, 2:08½, 2:07½, 2:10½, 2:16½.

2:12 TROT—PURSE \$1000.

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
Rody Patterson, Agt.....	Columbus, O.....	Moko Dillard.....	1 1 1	\$150 00
C. A. Valentine.....	Columbus, O.....	Miner Bell.....	3 2 2	115 00
J. Hetzel.....	Portsmouth, O.....	Mack Jay.....	2 3 3	85 00

Time—2:15½, 2:14½, 2:15½.

3:30 PACE—PURSE \$500.

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
J. S. Wilson.....	Coalton, O.....	Harold Bell.....	1 5 1 1	\$250 00
Frank Calhoun.....	Columbus, O.....	Willetta.....	2 1 2 2	125 00
Andrew Hess.....	Wapakoneta, O.....	Hazel Armstrong.....	3 2 5 3	75 00
W. A. Grimes.....	Columbus, O.....	Aaron Dillon.....	6 3 3 4	50 00

Time—2:14½, 2:17½, 2:17½, 2:23½.

2:18 PACE—PURSE \$1000.

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
Oscar Vallery.....	Derby, O.....	Hot Ball.....	1 2 1 1	\$500 00
D. M. Bell.....	Delaware, O.....	Gerinomo.....	2 1 3 3	250 00
Frank Hedrick.....	Jamestown, O.....	Wilkie Elder.....	3 3 2 2	150 00
P. G. Stillings.....	Milford Center, O.....	Little Wonder.....	4 4 4 4	100 00

Time—2:14½, 2:12½, 2:14½, 2:15½.

2:22 TROT—PURSE \$500.

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
Oscar Vallery.....	Derby, O.....	Royal Cadet.....	5 1 1 1	\$250 00
W. L. Spears.....	Lexington, Ky.....	Lady J.....	1 4 4 2	125 00
Parlee Mitchell.....	Findlay, O.....	Crown King.....	3 2 2 4	75 00
C. P. Parker.....	Niles, Mich.....	Alice Bartell.....	2 3 5 3	50 00

Time—2:10½, 2:15½, 2:16, 2:17½.

2:23 PACE—PURSE \$500.

Entered By	Residence.	Name of Horse.	Heats.	Amount Won.
B. F. Cronley.....	Mt. Victory, O.....	Dandy K.....	1 1 1	\$250 00
Patterson Bros.....	Piketon, O.....	Christabell.....	2 2 2	125 00
A. A. Crooks.....	Marion, O.....	Doctor S.....	3 3 3	75 00

Time—2:20½, 2:13½, 2:14½.

SECOND DEPARTMENT—CATTLE.

J. B. PERKINS, In Charge.

E. C. FOOTS.....Superintendent
M. L. VAN METER.....Clerk

JUDGES.

J. E. ROBBINS, JOHN DICKSON, W. GETTYS, W. A. MARTIN, JOHN C. McNUTT.

Received from stall rent, 1913.....	\$1,161 00
Premiums offered, 1913.....	6,705 00
Premiums paid, 1913.....	6,229 00
Entries, 1913.....	1109
Animals shown in ring.....	893
Paid superintendents, judges, etc., 1913.....	\$533 00
Received from stall rent, 1912.....	654 00
Premiums offered, 1912.....	7,452 00
Premiums paid, 1912.....	6,322 00
Total Number of Entries, 1912.....	603
Paid superintendents, judges, etc., 1912.....	\$581 75
Received for stall rent, 1911.....	\$987 50
Premiums offered, 1911.....	7,383 00
Premiums paid, 1911.....	6,491 00
Total Number of Entries, 1911.....	846
Paid superintendents, judges, etc., 1911.....	\$653 11
Received from stall rent, 1910.....	\$1,258 50
Premiums offered, 1910.....	7,325 00
Premiums paid, 1910.....	6,416 00
Total Number of Entries, 1910.....	922
Paid superintendents, judges, etc., 1910.....	\$561 14

SHORTHORNS.

JUDGE, J. E. ROBBINS.

Premiums offered.....	\$1,010 00
Premiums paid.....	970 00
Entries.....	152
Animals shown in ring.....	116

Name.	Postoffice.	Awards.	Amount.
N. W. Wagner.....	Fremont, O.....	Best bull 3 years old or over.....	\$20 00
Carpenter & Ross.....	Mansfield, O.....	2d best bull 3 years old or over.....	15 00
Anoka Farm.....	Waukesha, Wis.....	3d best bull 3 years old or over.....	10 00
Lespedeza Farm.....	Hickory Valley, Tenn.....	4th best bull 3 years old or over.....	5 00
Frank Edwards.....	Tiffin, O.....	Best bull 2 years old and under 3.....	20 00
N. W. Wagner.....	Fremont, O.....	2d best bull 2 years old and under 3.....	15 00
Carpenter & Ross.....	Mansfield, O.....	3d best bull 2 years old and under 3.....	10 00
Carpenter & Ross.....	Mansfield, O.....	Best senior yearling bull dropped between Sept. 1, 1911, and Jan. 1, 1912.....	20 00
Lespedeza Farm.....	Hickory Valley, Tenn.....	Best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	20 00
Carpenter & Ross.....	Mansfield, O.....	2d best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	10 00
Carpenter & Ross.....	Mansfield, O.....	3d best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	10 00
N. W. Wagner.....	Fremont, O.....	4th best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	5 00
Anoka Farm.....	Waukesha, Wis.....	Best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	20 00
Carpenter & Ross.....	Fremont, O.....	2d best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	15 00
Carpenter & Ross.....	Fremont, O.....	3d best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	10 00
Lespedeza Farm.....	Hickory Valley, Tenn.....	4th best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	5 00
Lespedeza Farm.....	Hickory Valley, Tenn.....	Best junior bull calf dropped since Jan. 1, 1913.....	15 00
Carpenter & Ross.....	Mansfield, O.....	2d best junior bull calf dropped since Jan. 1, 1913.....	10 00

SHORTHORNS—Concluded.

Name.	Postoffice.	Awards.	Amount.
W. C. Rosenberger.....	Tiffin, O.....	3d best junior bull calf dropped since Jan. 1, 1913..	\$5 00
N. W. Wagner.....	Fremont, O.....	Best cow 3 years old or over.....	20 00
Carpenter & Ross.....	Mansfield, O.....	2d best cow 3 years old or over.....	15 00
Anoka Farm.....	Waukesha, Wis.....	3d best cow 3 years old or over.....	10 00
Carpenter & Ross.....	Mansfield, O.....	4th best cow 3 years old or over.....	5 00
N. W. Wagner.....	Fremont, O.....	Best cow or heifer 2 years old and under 3.....	20 00
Carpenter & Ross.....	Mansfield, O.....	2d best cow or heifer 2 years old and under 3.....	15 00
Anoka Farm.....	Waukesha, Wis.....	3d best cow or heifer 2 years old and under 3.....	10 00
N. W. Wagner.....	Fremont, O.....	4th best cow or heifer 2 years old and under 3.....	5 00
Carpenter & Ross.....	Mansfield, O.....	Best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	20 00
Carpenter & Ross.....	Mansfield, O.....	2d best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	15 00
Anoka Farm.....	Waukesha, Wis.....	3d best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	10 00
Lespedeza Farm.....	Hickory Valley, Tenn.....	4th best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	5 00
N. W. Wagner.....	Fremont, O.....	Best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	20 00
Carpenter & Ross.....	Mansfield, O.....	2d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	15 00
Carpenter & Ross.....	Mansfield, O.....	3d best yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	10 00
Lespedeza Farm.....	Hickory Valley, Tenn.....	4th best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	5 00
Lespedeza Farm.....	Hickory Valley, Tenn.....	Best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	20 00
Carpenter & Ross.....	Mansfield, O.....	2d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	15 00
Lespedeza Farm.....	Hickory Valley, Tenn.....	3d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	10 00
W. C. Rosenberger.....	Tiffin, O.....	4th best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	5 00
Carpenter & Ross.....	Mansfield, O.....	Best junior heifer calf dropped since Jan. 1, 1913..	15 00
Carpenter & Ross.....	Mansfield, O.....	2d best junior heifer calf dropped since Jan. 1, 1913..	10 00
N. W. Wagner.....	Fremont, O.....	3d best junior heifer calf dropped since Jan. 1, 1913..	5 00
N. W. Wagner.....	Fremont, O.....	Best exhibitor's herd.....	40 00
Carpenter & Ross.....	Mansfield, O.....	2d best exhibitor's herd.....	20 00
Anoka Farm.....	Waukesha, Wis.....	3d best exhibitor's herd.....	10 00
Carpenter & Ross.....	Mansfield, O.....	Best breeder's young herd.....	30 00
Lespedeza Farm.....	Hickory Valley, Tenn.....	2d best breeder's young herd.....	20 00
Carpenter & Ross.....	Mansfield, O.....	3d best breeder's young herd.....	10 00
Carpenter & Ross.....	Mansfield, O.....	Best calf herd.....	30 00
W. C. Rosenberger.....	Tiffin, O.....	2d best calf herd.....	20 00
N. W. Wagner.....	Fremont, O.....	3d best calf herd.....	10 00
Carpenter & Ross.....	Mansfield, O.....	Best get of sire.....	25 00
N. W. Wagner.....	Fremont, O.....	2d best get of sire.....	15 00
Carpenter & Ross.....	Mansfield, O.....	3d best get of sire.....	10 00
N. W. Wagner.....	Fremont, O.....	Best produce of cow.....	15 00
Carpenter & Ross.....	Mansfield, O.....	2d best produce of cow.....	10 00
Carpenter & Ross.....	Mansfield, O.....	3d best produce of cow.....	5 00

CHAMPIONS.

N. W. Wagner.....	Fremont, O.....	Senior champion bull.....	\$20 00
Carpenter & Ross.....	Mansfield, O.....	Junior champion bull.....	20 00
N. W. Wagner.....	Fremont, O.....	Senior champion cow.....	20 00
N. W. Wagner.....	Fremont, O.....	Junior champion cow.....	20 00

GRAND CHAMPIONS.

N. W. Wagner.....	Fremont, O.....	Grand champion bull.....	\$20 00
N. W. Wagner.....	Fremont, O.....	Grand champion female.....	20 00

CHAMPIONS.

Cows in Milk.

Anoka Farm.....	Waukesha, Wis.....	Best cow 3 years old or over.....	\$15 00
Carpenter & Ross.....	Mansfield, O.....	2d best cow 3 years old or over.....	10 00
Carpenter & Ross.....	Mansfield, O.....	3d best cow 3 years old or over.....	5 00
Carpenter & Ross.....	Mansfield, O.....	Best cow under 3 years.....	15 00
Carpenter & Ross.....	Mansfield, O.....	2d best cow under 3 years.....	10 00

ABERDEEN ANGUS.

JUDGE, JOHN DICKSON.

Premiums offered.....		\$642 00
Premiums paid.....		551 00
Entries.....	73	
Animals shown in ring.....	66	

Name.	Postoffice.	Awards.	Amount.
D. Bradfute & Son.....	Xenia, O.....	Best bull 3 years old and over.....	\$20 00
Wilson Bros.....	Muncie, Ind.....	2d best bull 3 years old and over.....	10 00
D. Bradfute & Son.....	Xenia, O.....	3d best bull 3 years old and over.....	5 00
F. B. Turnbull.....	Cedarville, O.....	4th best bull 3 years old and over.....	3 00
Wilson Bros.....	Muncie, Ind.....	Best senior yearling bull dropped between Sept. 1, 1911, and Jan. 1, 1912.....	12 00
F. B. Turnbull.....	Cedarville, O.....	2d best senior yearling bull dropped between Sept. 1, 1911, and Jan. 1, 1912.....	6 00
D. Bradfute & Son.....	Xenia, O.....	3d best senior yearling bull dropped between Sept. 1, 1911, and Jan. 1, 1912.....	4 00
F. B. Turnbull.....	Cedarville, O.....	Best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	12 00
Wilson Bros.....	Muncie, Ind.....	2d best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	6 00
D. Bradfute & Son.....	Xenia, O.....	3d best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	4 00
Wilson Bros.....	Muncie, Ind.....	Best junior bull calf dropped since Jan. 1, 1913.....	10 00
Wilson Bros.....	Muncie, Ind.....	Best cow 3 years old and over.....	20 00
F. B. Turnbull.....	Cedarville, O.....	2d best cow 3 years old and over.....	10 00
D. Bradfute & Son.....	Xenia, O.....	3d best cow 3 years old and over.....	5 00
D. Bradfute & Son.....	Xenia, O.....	4th best cow 3 years old and over.....	3 00
D. Bradfute & Son.....	Xenia, O.....	Best cow or heifer 2 years old and under 3.....	20 00
D. Bradfute & Son.....	Xenia, O.....	2d best cow or heifer 2 years old and under 3.....	10 00
Wilson Bros.....	Muncie, Ind.....	3d best cow or heifer 2 years old and under 3.....	5 00
F. B. Turnbull.....	Cedarville, O.....	4th best cow or heifer 2 years old and under 3.....	3 00
D. Bradfute & Son.....	Xenia, O.....	Best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	12 00
F. B. Turnbull.....	Cedarville, O.....	2d best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	6 00
Wilson Bros.....	Muncie, Ind.....	3d best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	4 00
D. Bradfute & Son.....	Xenia, O.....	4th best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	2 00
F. B. Turnbull.....	Cedarville, O.....	Best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	10 00
Wilson Bros.....	Muncie, Ind.....	2d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	6 00
D. Bradfute & Son.....	Xenia, O.....	3d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	4 00
F. D. Turnbull.....	Cedarville, O.....	Best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	10 00
D. Bradfute & Son.....	Xenia, O.....	2d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	6 00
Wilson Bros.....	Muncie, Ind.....	3d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	4 00
D. Bradfute & Son.....	Xenia, O.....	4th best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	2 00
D. Bradfute & Son.....	Xenia, O.....	Best junior heifer calf dropped since Jan. 1, 1913.....	10 00
Wilson Bros.....	Muncie, Ind.....	2d best junior heifer calf dropped since Jan. 1, 1913.....	6 00
D. Bradfute & Son.....	Xenia, O.....	3d best junior heifer calf dropped since Jan. 1, 1913.....	4 00
F. B. Turnbull.....	Cedarville, O.....	4th best junior heifer calf dropped since Jan. 1, 1913.....	2 00
D. Bradfute & Son.....	Xenia, O.....	Best exhibitor's herd.....	30 00
Wilson Bros.....	Muncie, Ind.....	2d best exhibitor's herd.....	20 00
F. B. Turnbull.....	Cedarville, O.....	3d best exhibitor's herd.....	10 00
D. Bradfute & Son.....	Xenia, O.....	Best breeder's young herd.....	30 00
F. B. Turnbull.....	Cedarville, O.....	2d best breeder's young herd.....	20 00
Wilson Bros.....	Muncie, Ind.....	3d best breeder's young herd.....	10 00
D. Bradfute & Son.....	Xenia, O.....	Best calf herd.....	25 00
Wilson Bros.....	Muncie, Ind.....	2d best calf herd.....	15 00
D. Bradfute & Son.....	Xenia, O.....	Best get of sire.....	20 00
D. Bradfute & Son.....	Xenia, O.....	2d best get of sire.....	15 00
F. B. Turnbull.....	Cedarville, O.....	3d best get of sire.....	10 00
F. B. Turnbull.....	Cedarville, O.....	Best produce of cow.....	15 00
D. Bradfute & Son.....	Xenia, O.....	2d best produce of cow.....	10 00
Wilson Bros.....	Muncie, Ind.....	3d best produce of cow.....	5 00

CHAMPIONS.

D. Bradfute & Son.....	Xenia, O.....	Senior champion bull.....	\$10 00
Wilson Bros.....	Muncie, Ind.....	Junior champion bull.....	10 00
Wilson Bros.....	Muncie, Ind.....	Senior champion cow.....	10 00
D. Bradfute & Son.....	Xenia, O.....	Junior champion female.....	10 00

ABERDEEN ANGUS—Concluded.

Name.	Postoffice.	Awards.	Amount.
GRAND CHAMPIONS.			
D. Bradfute & Son.....	Xenia, O.....	Grand champion bull.....	\$10 00
Wilson Bros.....	Muncie, Ind.....	Grand champion female.....	10 00

HEREFORDS.

JUDGE, J. E. ROBBINS.

Premiums offered.....	\$639 00
Premiums paid.....	595 00
Entries.....	116
Animals shown in ring.....	82

Name.	Postoffice.	Awards.	Amount.
Spring Lea Stock Farm, M. R. Grummel.....	Yellow Springs, O., R. 1	Best bull 3 years old or over.....	\$16 00
Luce & Moxley.....	Shelbyville, Ky.....	Best bull 2 years old and under 3.....	16 00
J. H. & Jno. W. Van Natta	Lafayette, Ind.....	2d best bull 2 years old and under 3.....	12 00
W. H. Curtice.....	Eminence, Ky.....	3d best bull 2 years old and under 3.....	5 00
W. H. Curtice.....	Eminence, Ky.....	Best senior yearling bull dropped between Sept. 1, 1911, and Jan. 1, 1912.....	12 00
J. H. & Jno. W. Van Natta	Lafayette, Ind.....	2d best senior yearling bull dropped between Sept. 1, 1911, and Jan. 1, 1912.....	6 00
Luce & Moxley.....	Shelbyville, Ky.....	3d best senior yearling bull dropped between Sept. 1, 1911, and Jan. 1, 1912.....	4 00
Luce & Moxley.....	Shelbyville, Ky.....	Best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	12 00
Luce & Moxley.....	Shelbyville, Ky.....	Best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	10 00
J. H. & Jno. W. Van Natta	Lafayette, Ind.....	2d best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	6 00
W. H. Curtice.....	Eminence, Ky.....	3d best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	4 00
J. B. Fernow.....	Leesburg, O.....	4th best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	2 00
W. H. Curtice.....	Eminence, Ky.....	Best junior bull calf dropped since Jan. 1, 1913.....	10 00
Luce & Moxley.....	Shelbyville, Ky.....	2d best junior bull calf dropped since Jan. 1, 1913.....	6 00
Smith & Wilson.....	Decatur, Ind.....	3d best junior bull calf dropped since Jan. 1, 1913.....	4 00
Luce & Moxley.....	Shelbyville, Ky.....	4th best junior bull calf dropped since Jan. 1, 1913.....	2 00
J. H. & Jno. W. Van Natta	Lafayette, Ind.....	Best cow 3 years old or over.....	16 00
Luce & Moxley.....	Shelbyville, Ky.....	2d best cow 3 years old or over.....	12 00
Spring Lea Stock Farm	Yellow Springs, O.....	3d best cow 3 years old or over.....	5 00
W. H. Curtice.....	Eminence, Ky.....	Best cow or heifer 2 years old and under 3.....	16 00
Luce & Moxley.....	Shelbyville, Ky.....	2d best cow or heifer 2 years old and under 3.....	12 00
J. H. & Jno. W. Van Natta	Lafayette, Ind.....	3d best cow or heifer 2 years old and under 3.....	5 00
W. H. Curtice.....	Eminence, Ky.....	4th best cow or heifer 2 years old and under 3.....	3 00
Smith & Wilson.....	Decatur, Ind.....	Best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	10 00
W. H. Curtice.....	Eminence, Ky.....	2d best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	6 00
J. H. & Jno. W. Van Natta	Lafayette, Ind.....	3d best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	4 00
Luce & Moxley.....	Shelbyville, Ky.....	4th best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	2 00
J. H. & Jno. W. Van Natta	Lafayette, Ind.....	Best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	10 00
Smith & Wilson.....	Decatur, Ind.....	2d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	6 00
Luce & Moxley.....	Shelbyville, Ky.....	3d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	4 00
W. H. Curtice.....	Eminence, Ky.....	Best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	10 00
Luce & Moxley.....	Shelbyville, Ky.....	2d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	6 00
J. H. & Jno. W. Van Natta..	Lafayette, Ind.....	3d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	4 00
J. B. Fernow.....	Leesburg, O.....	4th best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	2 00
Luce & Moxley.....	Shelbyville, Ky.....	Best junior heifer calf dropped since Jan. 1, 1913.....	10 00
W. H. Curtice.....	Eminence, Ky.....	2d best junior heifer calf dropped since Jan. 1, 1913.....	6 00
J. H. & Jno. W. Van Natta..	Lafayette, Ind.....	3d best junior heifer calf dropped since Jan. 1, 1913.....	4 00
Luce & Moxley.....	Shelbyville, Ky.....	Best exhibitor's herd.....	30 00
J. H. & Jno. W. Van Natta..	Lafayette, Ind.....	2d best exhibitor's herd.....	20 00

HEREFORDS—Concluded.

Name.	Postoffice.	Awards.	Amount.
W. H. Curtice.....	Eminence, Ky.....	Best breeder's young herd.....	\$30 00
Luce & Moxley.....	Shelbyville, Ky.....	2d best breeder's young herd.....	20 00
J. H. & Jno. W. Van Natta.....	Lafayette, Ind.....	3d best breeder's young herd.....	10 00
Luce & Moxley.....	Shelbyville, Ky.....	Best calf herd.....	25 00
W. H. Curtice.....	Eminence, Ky.....	2d best calf herd.....	20 00
J. H. & Jno. W. Van Natta.....	Lafayette, Ind.....	3d best calf herd.....	10 00
Luce & Moxley.....	Shelbyville, Ky.....	Best get of sire.....	20 00
W. H. Curtice.....	Eminence, Ky.....	2d best get of sire.....	15 00
J. H. & Jno. W. Van Natta.....	Lafayette, Ind.....	3d best get of sire.....	10 00
W. H. Curtice.....	Eminence, Ky.....	Best produce of cow.....	20 00
Luce & Moxley.....	Shelbyville, Ky.....	2d best produce of cow.....	15 00
Luce & Moxley.....	Shelbyville, Ky.....	3d best produce of cow.....	10 00
Luce & Moxley.....	Shelbyville, Ky.....	Senior champion bull.....	10 00
W. H. Curtice.....	Eminence, Ky.....	Junior champion bull.....	10 00
J. H. & Jno. W. Van Natta.....	Lafayette, Ind.....	Senior champion cow.....	10 00
Smith & Wilson.....	Decatur, Ind.....	Junior champion female.....	10 00

GRAND CHAMPIONS.

W. H. Curtice.....	Eminence, Ky.....	Grand champion bull.....	\$10 00
J. H. & Jno. W. Van Natta.....	Lafayette, Ind.....	Grand champion female.....	10 00

POLLED DURHAMS.

JUDGE, J. E. ROBBINS.

Premiums offered.....	\$476 00
Premiums paid.....	429 00
Entries.....	69
Animals shown in ring.....	62

Name.	Postoffice.	Awards.	Amount.
J. H. Miller.....	Peru, Ind.....	Best bull 3 years old or over.....	\$15 00
W. W. Rose & Sons.....	Rossville, Ind.....	2d best bull 3 years old or over.....	6 00
Wm. Tossey & Sons.....	Marysville, O.....	Best bull 2 years old and under 3.....	15 00
Wm. Tossey & Sons.....	Marysville, O.....	Best senior yearling bull dropped between Sept. 1, 1911, and Jan. 1, 1912.....	10 00
Wm. Tossey & Sons.....	Marysville, O.....	Best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	10 00
J. H. Miller.....	Peru, Ind.....	Best senior bull calf dropped between Sept. 1, 1912, and January 1, 1913.....	8 00
W. W. Rose & Sons.....	Rossville, Ind.....	2d best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	4 00
Wm. Tossey & Sons.....	Marysville, O.....	3d best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	3 00
W. W. Rose & Sons.....	Rossville, Ind.....	4th best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	2 00
Frank R. Edwards.....	Tiffin, O.....	Best junior bull calf dropped since Jan. 1, 1913.....	8 00
J. H. Miller.....	Peru, Ind.....	2d best junior bull calf dropped since Jan. 1, 1913.....	4 00
Wm. Tossey & Sons.....	Marysville, O.....	3d best junior bull calf dropped since Jan. 1, 1913.....	3 00
Wm. Tossey & Sons.....	Marysville, O.....	4th best junior bull calf dropped since Jan. 1, 1913.....	2 00
W. W. Rose & Sons.....	Rossville, Ind.....	Best cow 3 years old and over.....	15 00
J. H. Miller.....	Peru, Ind.....	2d best cow 3 years old and over.....	6 00
Wm. Tossey & Sons.....	Marysville, O.....	3d best cow 3 years old and over.....	3 00
W. W. Rose & Sons.....	Rossville, Ind.....	Best cow or heifer 2 years old and under 3.....	15 00
J. H. Miller.....	Peru, Ind.....	2d best cow or heifer 2 years old and under 3.....	6 00
Wm. Tossey & Sons.....	Marysville, O.....	3d best cow or heifer 2 years old and under 3.....	3 00
W. W. Rose & Sons.....	Rossville, Ind.....	Best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	8 00
J. H. Miller.....	Peru, Ind.....	2d best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	4 00
Wm. Tossey & Sons.....	Marysville, O.....	3d best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	3 00
W. W. Rose & Sons.....	Rossville, Ind.....	Best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	8 00
J. H. Miller.....	Peru, Ind.....	2d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	4 00
W. W. Rose & Sons.....	Rossville, Ind.....	3d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	3 00
J. H. Miller.....	Peru, Ind.....	4th best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	2 00
J. H. Miller.....	Peru, Ind.....	Best senior heifer calf dropped between Sept. 1, 1912, and January 1, 1913.....	8 00
W. W. Rose & Sons.....	Rossville, Ind.....	2d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	4 00
W. W. Rose & Sons.....	Rossville, Ind.....	3d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	3 00

POLLED DURHAMS—Concluded.

Name.	Postoffice.	Awards.	Amount.
Wm. Tossey & Sons.....	Marysville, O.....	4th best senior heifer calf dropped between Sept. 1, 1912, and January 1, 1913.....	\$2 00
J. H. Miller.....	Peru, Ind.....	Best junior heifer calf dropped since Jan. 1, 1913.....	8 00
Wm. Tossey & Sons.....	Marysville, O.....	2d best junior heifer calf dropped since Jan. 1, 1913.....	4 00
W. W. Rose & Sons.....	Rossville, Ind.....	3d best junior heifer calf dropped since Jan. 1, 1913.....	3 00
Wm. Tossey & Sons.....	Marysville, O.....	4th best junior heifer calf dropped since Jan. 1, 1913.....	2 00
J. H. Miller.....	Peru, Ind.....	Best exhibitor's herd.....	20 00
W. W. Rose & Sons.....	Rossville, Ind.....	2d best exhibitor's herd.....	15 00
Wm. Tossey & Sons.....	Marysville, O.....	3d best exhibitor's herd.....	10 00
J. H. Miller.....	Peru, Ind.....	Best breeder's young herd.....	20 00
W. W. Rose & Sons.....	Rossville, Ind.....	2d best breeder's young herd.....	15 00
Wm. Tossey & Sons.....	Marysville, Ohio.....	3d best breeder's young herd.....	10 00
Wm. Tossey & Sons.....	Marysville, O.....	Best calf herd.....	15 00
J. H. Miller.....	Peru, Ind.....	Best get of sire.....	15 00
W. W. Rose & Sons.....	Rossville, Ind.....	2d best get of sire.....	10 01
W. W. Rose & Sons.....	Rossville, Ind.....	3d best get of sire.....	5 00
J. H. Miller.....	Peru, Ind.....	Best produce of cow.....	15 00
W. W. Rose & Sons.....	Rossville, Ind.....	2d best produce of cow.....	10 00
Wm. Tossey & Sons.....	Marysville, O.....	3d best produce of cow.....	5 00
J. H. Miller.....	Peru, Ind.....	Senior champion bull.....	10 00
J. H. Miller.....	Peru, Ind.....	Junior champion bull.....	10 00
W. W. Rose & Sons.....	Rossville, Ind.....	Senior champion cow.....	10 00
J. H. Miller.....	Peru, Ind.....	Junior champion female.....	10 00
J. H. Miller.....	Peru, Ind.....	Grand champion bull.....	10 00
W. W. Rose & Sons.....	Rossville, Ind.....	Grand champion female.....	10 00

GALLOWAYS.

JUDGE, JOHN DICKSON.

Premiums offered.....		\$354 00
Premiums paid.....		261 00
Entries.....	23	
Animals shown in ring.....	23	

Name.	Postoffice.	Awards.	Amount.
Jas. Frantz & Sons.....	Bluffton, O.....	Best bull 3 years old or over.....	\$15 00
Jas. Frantz & Sons.....	Bluffton, O.....	Best bull 3 years old and under 4.....	15 00
Jas. Frantz & Sons.....	Bluffton, O.....	Best bull 1 year old and under 2.....	10 00
Jas. Frantz & Sons.....	Bluffton, O.....	Best bull under 1 year old.....	8 00
Jas. Frantz & Sons.....	Bluffton, O.....	2d best bull under 1 year old.....	5 00
Jas. Frantz & Sons.....	Bluffton, O.....	Best cow 3 years old or over.....	15 00
Jas. Frantz & Sons.....	Bluffton, O.....	2d best cow 3 years old or over.....	10 00
Jas. Frantz & Sons.....	Bluffton, O.....	Best cow or heifer 2 years old and under 3.....	15 00
Jas. Frantz & Sons.....	Bluffton, O.....	2d best cow or heifer 2 years old and under 3.....	10 00
Jas. Frantz & Sons.....	Bluffton, O.....	Best heifer 1 year old and under 2.....	10 00
Jas. Frantz & Sons.....	Bluffton, O.....	2d best heifer 1 year old and under 2.....	7 00
Jas. Frantz & Sons.....	Bluffton, O.....	Best heifer under 1 year old.....	8 00
Jas. Frantz & Sons.....	Bluffton, O.....	2d best heifer under 1 year old.....	5 00
Jas. Frantz & Sons.....	Bluffton, O.....	3d best heifer under 1 year old.....	3 00
Jas. Frantz & Sons.....	Bluffton, O.....	Best exhibitor's herd.....	25 00
Jas. Frantz & Sons.....	Bluffton, O.....	2d best exhibitor's herd.....	15 00
Jas. Frantz & Sons.....	Bluffton, O.....	Best breeder's young herd.....	25 00
Jas. Frantz & Sons.....	Bluffton, O.....	Best get of sire.....	15 00
Jas. Frantz & Sons.....	Bluffton, O.....	2d best get of sire.....	10 00
Jas. Frantz & Sons.....	Bluffton, O.....	3d best get of sire.....	5 00
Jas. Frantz & Sons.....	Bluffton, O.....	Best produce of cow.....	15 00
Jas. Frantz & Sons.....	Bluffton, O.....	2d best produce of cow.....	10 00
Jas. Frantz & Sons.....	Bluffton, O.....	3d best produce of cow.....	5 00

JERSEYS.

JUDGE, W. GETTYS.

Premiums offered.....		\$637 00
Premiums paid.....		633 00
Entries.....	138	
Animals shown in ring.....	109	

Name.	Postoffice.	Awards.	Amount.
John F. Boyd.....	Rushville, Ind.....	Best bull 3 years old and over.....	\$20 00
L. E. Holden.....	Mentor, Ohio.....	2d best bull 3 years old and over.....	10 00
John A. Logan.....	Youngstown, O.....	3d best bull 3 years old and over.....	5 00
Ed. C. Lasater.....	Falfurrias, Texas.....	4th best bull 3 years old and over.....	3 00
Ed. C. Lasater.....	Falfurrias, Texas.....	Best bull 2 years old and under 3.....	20 00
Ino. F. Boyd.....	Rushville, Ind.....	2d best bull 2 years old and under 3.....	10 00
L. E. Holden.....	Mentor, O.....	3d best bull 2 years old and under 3.....	5 00
Wm. Hoover.....	Westerville, O.....	4th best bull 2 years old and under 3.....	3 00
Ed. C. Lasater.....	Falfurrias, Texas.....	Best senior yearling bull dropped between Sept. 1, 1911 and Jan. 1, 1912.....	12 00
Elmendorf Farm.....	Lexington, Ky.....	2d best senior yearling bull dropped between Sept. 1, 1911, and Jan. 1, 1912.....	6 00
Ed. C. Lasater.....	Falfurrias, Texas.....	Best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	12 00
L. E. Holden.....	Mentor, O.....	2d best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	6 00
John A. Logan.....	Youngstown, O.....	3d best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	4 00
Elmendorf Farm.....	Lexington, Ky.....	Best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	12 00
Elmendorf Farm.....	Lexington, Ky.....	2d best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	6 00
John A. Logan.....	Youngstown, O.....	3d best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	4 00
Ed. C. Lasater.....	Falfurrias, Texas.....	4th best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	2 00
Ed. C. Lasater.....	Falfurrias, Texas.....	Best junior bull calf dropped since Jan. 1, 1913.....	10 00
John F. Boyd.....	Rushville, Ind.....	2d best junior bull calf dropped since Jan. 1, 1913.....	6 00
Ed. C. Lasater.....	Falfurrias, Texas.....	3d best junior bull calf dropped since Jan. 1, 1913.....	4 00
L. E. Holden.....	Mentor, O.....	4th best junior bull calf dropped since Jan. 1, 1913.....	2 00
Ed. C. Lasater.....	Falfurrias, Texas.....	Best cow 3 years old or over.....	20 00
Elmendorf Farm.....	Lexington, Ky.....	2d best cow 3 years old or over.....	10 00
Elmendorf Farm.....	Lexington, Ky.....	3d best cow 3 years old or over.....	5 00
Elmendorf Farm.....	Lexington, Ky.....	4th best cow 3 years old or over.....	3 00
Ed. C. Lasater.....	Falfurrias, Texas.....	Best cow or heifer 2 years old and under 3.....	20 00
Elmendorf Farm.....	Falfurrias, Texas.....	2d best cow or heifer 2 years old and under 3.....	10 00
Elmendorf Farm.....	Lexington, Ky.....	3d best cow or heifer 2 years old and under 3.....	5 00
Ed. C. Lasater.....	Falfurrias, Texas.....	4th best cow or heifer 2 years old and under 3.....	3 00
C. C. Polck & Son.....	Springfield, O.....	Best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	12 00
Ed. C. Lasater.....	Falfurrias, Texas.....	2d best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	6 00
Ed. C. Lasater.....	Falfurrias, Texas.....	3d best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	4 00
Elmendorf Farm.....	Lexington, Ky.....	4th best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	2 00
Ed. C. Lasater.....	Falfurrias, Texas.....	Best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	10 00
Elmendorf Farm.....	Lexington, Ky.....	2d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	6 00
Elmendorf Farm.....	Lexington, Ky.....	3d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	4 00
John F. Boyd.....	Rushville, Ind.....	4th best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	2 00
Ed. C. Lasater.....	Falfurrias, Texas.....	Best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	10 00
Elmendorf Farm.....	Lexington, Ky.....	2d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	6 00
John F. Boyd.....	Rushville, Ind.....	3d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	4 00
Elmendorf Farm.....	Lexington, Ky.....	4th best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	2 00
Ed. C. Lasater.....	Falfurrias, Texas.....	Best junior heifer calf dropped since Jan. 1, 1913.....	10 00
Elmendorf Farm.....	Lexington, Ky.....	2d best junior heifer calf dropped since Jan. 1, 1913.....	6 00
Ed. C. Lasater.....	Falfurrias, Texas.....	3d best junior heifer calf dropped since Jan. 1, 1913.....	4 00
L. E. Holden.....	Mentor, O.....	4th best junior heifer calf dropped since Jan. 1, 1913.....	2 00
Ed. C. Lasater.....	Falfurrias, Texas.....	Best exhibitor's herd.....	30 00
Elmendorf Farm.....	Lexington, Ky.....	2d best exhibitor's herd.....	20 00
John F. Boyd.....	Rushville, Ind.....	3d best exhibitor's herd.....	10 00
Elmendorf Farm.....	Lexington, Ky.....	Best breeder's young herd.....	30 00
Ed. C. Lasater.....	Falfurrias, Texas.....	2d best breeder's young herd.....	20 00
C. C. Polck & Son.....	Springfield, O.....	3d best breeder's young herd.....	10 00
Elmendorf Farm.....	Lexington, Ky.....	Best calf herd.....	25 00
Ed. C. Lasater.....	Falfurrias, Texas.....	2d best calf herd.....	15 00
L. E. Holden.....	Mentor, O.....	3d best calf herd.....	10 00

JERSEYS—Concluded.

Name.	Postoffice.	Awards.	Amount.
C. C. Folck & Son.....	Springfield, O.....	Best produce of cow.....	\$15 00
Ed. C. Lasater.....	Palfurrias, Texas.....	2d best produce of cow.....	10 00
L. E. Holden.....	Mentor, O.....	3d best produce of cow.....	5 00
Elmendorf Farm.....	Lexington, Ky.....	Best get of sire.....	20 00
Ed. C. Lasater.....	Palfurrias, Texas.....	2d best get of sire.....	15 00
Ed. C. Lasater.....	Palfurrias, Texas.....	3d best get of sire.....	10 00
Ed. C. Lasater.....	Palfurrias, Texas.....	Senior champion bull.....	10 00
Elmendorf Farm.....	Lexington, Ky.....	Junior champion bull.....	10 00
Ed. C. Lasater.....	Palfurrias, Texas.....	Senior champion cow.....	10 00
Ed. C. Lasater.....	Palfurrias, Texas.....	Junior champion female.....	10 00
Ed. C. Lasater.....	Palfurrias, Texas.....	Grand champion bull.....	10 00
Ed. C. Lasater.....	Palfurrias, Texas.....	Grand champion female.....	10 00

HOLSTEINS.

JUDGE, W. A. MARTIN.

Premiums offered.....		\$631 00
Premiums paid.....		624 00
Entries.....	166	
Animals shown in ring.....	126	

Name.	Postoffice.	Awards.	Amount.
Derrers Bros.....	Camp Chase, O.....	Best bull 3 years old or over.....	\$20 00
J. A. & W. W. Watson.....	Youngstown, O.....	2d best bull 3 years old or over.....	10 00
Frank White & Son.....	Woodstock, Ill.....	3d best bull 3 years old or over.....	5 00
J. G. Paxton & Son.....	Houston, Pa.....	4th best bull 3 years old or over.....	3 00
E. L. & O. O. Zehring.....	Germantown, O.....	Best bull 2 years old and under 3.....	20 00
J. G. Paxton & Son.....	Houston, Pa.....	2d best bull 2 years old and under 3.....	10 00
J. A. & W. W. Watson.....	Youngstown, O.....	3d best bull 2 years old and under 3.....	5 00
Frank White & Son.....	Woodstock, Ill.....	Best senior yearling bull dropped between Sept. 11 and Jan. 1, 1912.....	12 00
J. G. Paxton & Son.....	Houston, Pa.....	2d best senior yearling bull dropped between Sept. 11 and Jan. 1, 1912.....	6 00
Derrers Bros.....	Camp Chase, Ohio.....	Best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	12 00
E. L. & O. O. Zehring.....	Germantown, O.....	2d best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	6 00
J. A. & W. W. Watson.....	Youngstown, O.....	3d best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	4 00
Derrers Bros.....	Camp Chase, O.....	Senior bull calf dropped between September 1, 1912, and Jan. 1, 1913.....	12 00
E. L. & O. O. Zehring.....	Germantown, O.....	2d senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	6 00
Derrers Bros.....	Camp Chase, O.....	3d senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	4 00
E. L. & O. O. Zehring.....	Germantown, O.....	4th senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	2 00
Derrers Bros.....	Camp Chase, O.....	Best junior bull calf dropped since Jan. 1, 1913.....	10 00
Derrers Bros.....	Camp Chase, O.....	2d best junior bull calf dropped since Jan. 1, 1913.....	6 00
J. A. & W. W. Watson.....	Youngstown, O.....	3d best junior bull calf dropped since Jan. 1, 1913.....	4 00
J. G. Paxton & Son.....	Houston, Pa.....	4th best junior bull calf dropped since Jan. 1, 1913.....	2 00
J. G. Paxton & Son.....	Houston, Pa.....	Best cow 3 years old or over.....	16 00
Derrers Bros.....	Camp Chase, O.....	2d best cow 3 years old or over.....	12 00
J. A. & W. W. Watson.....	Youngstown, O.....	3d best cow 3 years old or over.....	5 00
Frank White & Son.....	Woodstock, Ill.....	4th best cow 3 years old or over.....	3 00
Derrers Bros.....	Camp Chase, O.....	Best cow or heifer 2 years old and under 3.....	16 00
C. M. Bottema.....	Indianapolis, Ind.....	2d best cow or heifer 2 years old and under 3.....	12 00
J. A. & W. W. Watson.....	Youngstown, O.....	3d best cow or heifer 2 years old and under 3.....	5 00
J. G. Paxton & Son.....	Houston, Pa.....	4th best cow or heifer 2 years old and under 3.....	3 00
C. M. Bottema.....	Indianapolis, Ind.....	Best senior yearling heifer dropped between Sept. 1, 1912, and Jan. 1, 1913.....	10 00
C. M. Bottema.....	Indianapolis, Ind.....	2d best senior yearling heifer dropped between Sept. 1, 1912, and Jan. 1, 1913.....	6 00
C. M. Bottema.....	Indianapolis, Ind.....	3d best senior yearling heifer dropped between Sept. 1, 1912, and Jan. 1, 1913.....	4 00
Frank White & Son.....	Woodstock, Ill.....	4th best senior yearling heifer dropped between Sept. 1, 1912, and Jan. 1, 1913.....	2 00
Derrers Bros.....	Camp Chase, O.....	Best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	10 00
E. L. & O. O. Zehring.....	Germantown, O.....	2d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	6 00
Derrers Bros.....	Camp Chase, O.....	3d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	4 00
J. A. & W. W. Watson.....	Youngstown, O.....	4th best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	2 00

HOLSTEINS—Concluded.

Name.	Postoffice.	Awards.	Amount.
Derr Bros.	Camp Chase, O.	Best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.	\$10 00
J. G. Paxton & Son	Houston, Pa.	2d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.	6 00
Derr Bros.	Camp Chase, O.	3d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.	4 00
Frank White & Son	Woodstock, Ill.	4th best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.	2 00
Derr Bros.	Camp Chase, O.	Best junior heifer calf dropped since Jan. 1, 1913.	10 00
J. A. & W. W. Watson	Youngstown, O.	2d best junior heifer calf dropped since Jan. 1, 1913.	6 00
Derr Bros.	Camp Chase, O.	3d best junior heifer calf dropped since Jan. 1, 1913.	4 00
Derr Bros.	Camp Chase, O.	4th best junior heifer calf dropped since Jan. 1, 1913.	2 00
Derr Bros.	Camp Chase, O.	Best exhibitor's herd.	30 00
J. A. & W. W. Watson	Youngstown, O.	2d best exhibitor's herd.	20 00
Frank White & Son	Woodstock, Ill.	3d best exhibitor's herd.	10 00
Derr Bros.	Camp Chase, O.	Best breeder's young herd.	30 00
E. L. & O. O. Zehring	Germantown, O.	2d best breeder's young herd.	20 00
Frank White & Son	Woodstock, Ill.	3d best breeder's young herd.	10 00
Derr Bros.	Camp Chase, O.	Best calf herd.	25 00
E. L. & O. O. Zehring	Germantown, O.	2d best calf herd.	15 00
J. A. & W. W. Watson	Youngstown, O.	3d best calf herd.	10 00
C. M. Bottema	Indianapolis, Ind.	Best get of sire.	20 00
Frank White & Son	Woodstock, Ill.	2d best get of sire.	15 00
Derr Bros.	Camp Chase, O.	3d best get of sire.	10 00
Frank White & Son	Woodstock, Ill.	Best produce of cow.	15 00
Derr Bros.	Camp Chase, O.	2d best produce of cow.	10 00
E. L. & O. O. Zehring	Germantown, O.	3d best produce of cow.	5 00
Derr Bros.	Camp Chase, O.	Senior champion bull.	10 00
Derr Bros.	Camp Chase, O.	Junior champion bull.	10 00
J. G. Paxton & Son	Houston, Pa.	Senior champion cow.	10 00
Derr Bros.	Camp Chase, O.	Junior champion female.	10 00
Derr Bros.	Camp Chase, O.	Grand champion bull.	10 00
J. G. Paxton & Son	Houston, Pa.	Grand champion female.	10 00

RED POLLS.

JUDGE, W. A. MARTIN.

Premiums offered.....		\$448 00
Premiums paid.....		384 00
Entries.....	72	
Animals shown in ring.....	54	

Name.	Postoffice.	Awards.	Amount.
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Best bull 3 years old and over.	\$12 00
Frank Hartline & Sons.....	Strasburg, O.	2d best bull 3 years old and over.	6 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Best bull 2 years old and under 3.	12 00
J. G. Paxton & Son	Houston, Pa.	Best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.	10 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.	8 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Best junior bull calf dropped since Jan. 1, 1913.	8 00
Frank Hartline & Sons.....	Strasburg, O.	2d best junior bull calf dropped since Jan. 1, 1913.	4 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	3d best junior bull calf dropped since Jan. 1, 1913.	3 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Best cow 3 years old or over.	12 00
Frank Hartline & Sons.....	Strasburg, O.	2d best cow 3 years old or over.	6 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	3d best cow 3 years old or over.	3 00
Frank Hartline & Sons.....	Strasburg, O.	Best cow or heifer 2 years old and under 3.	12 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	2d best cow or heifer 2 years old and under 3.	6 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	3d best cow or heifer 2 years old and under 3.	3 00
Frank Hartline & Sons.....	Strasburg, O.	Best senior heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.	8 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	2d best senior heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.	4 00
Frank Hartline & Sons.....	Strasburg, O.	Best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.	8 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	2d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.	4 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	3d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.	3 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.	8 00
Frank Hartline & Sons.....	Strasburg, O.	2d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.	4 00
J. G. Paxton & Son	Houston, Pa.	3d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.	3 00

RED POLLS—Concluded.

Name.	Postoffice.	Awards.	Amount.
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Best junior heifer calf dropped since Jan. 1, 1913.	\$8 00
Frank Hartline & Sons.....	Strasburg, O.	2d best junior heifer calf dropped since Jan. 1, 1913	4 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Best exhibitor's herd.....	20 00
Frank Hartline & Sons.....	Strasburg, O.	2d best exhibitor's herd.....	15 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	3d best exhibitor's herd.....	10 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Best breeder's young herd.....	20 00
Frank Hartline & Sons.....	Strasburg, O.	2d best breeder's young herd.....	15 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Best calf herd.....	15 00
Frank Hartline & Sons.....	Strasburg, O.	2d best calf herd.....	10 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Best get of sire.....	15 00
Frank Hartline & Sons.....	Strasburg, O.	2d best get of sire.....	10 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	3d best get of sire.....	5 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Best produce of cow.....	15 00
Frank Hartline & Sons.....	Strasburg, O.	2d best produce of cow.....	10 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	3d best produce of cow.....	5 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Senior champion bull.....	10 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Junior champion bull.....	10 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Senior champion cow.....	10 00
Frank Hartline & Sons.....	Strasburg, O.	Junior champion female.....	10 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Grand champion bull.....	10 00
Geo. Ineicher & Sons.....	Geneva, Ind., R. 2	Grand champion female.....	10 00

GUERNSEYS.

JUDGE, W. GETTYS.

Premiums offered.....		\$637 00
Premiums paid.....		618 00
Entries.....	131	
Animals shown in ring.....	103	

Name.	Postoffice.	Awards.	Amount.
L. M. Brownrigg.....	Worthington, O.	Best bull 3 years old or over.....	\$20 00
Elbert H. Baker.....	Gates Mills, O.	2d best bull 3 years old or over.....	10 00
W. Henry Bell & Son.....	Scotts Station, Ky.	3d best bull 3 years old or over.....	5 00
Oak Ridge Farm.....	Oak Ridge, Va.	4th best bull 3 years old or over.....	3 00
Elbert H. Baker.....	Gates Mills, O.	Best bull 2 years old and under 3.....	20 00
H. M. Allen.....	Troy, O.	2d best bull 2 years old and under 3.....	10 00
Dean Valley Stock Farm.....	Linden Heights, O.	3d best bull 2 years old and under 3.....	5 00
W. Henry Bell & Son.....	Scotts Station, Ky.	Best senior yearling bull dropped between Sept. 1, 1911, and Jan. 1, 1912.....	12 00
Oak Ridge Farm.....	Oak Ridge, Va.	2d best senior yearling bull dropped between Sept. 1, 1911, and Jan. 1, 1912.....	6 00
Elbert H. Baker.....	Gates Mills, O.	Best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	12 00
W. Henry Bell & Son.....	Scotts Station, Ky.	2d best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	6 00
H. M. Allen.....	Troy, Ohio.....	3d best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	4 00
Oak Ridge Farm.....	Oak Ridge, Va.	Best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	12 00
Oak Ridge Farm.....	Oak Ridge, Va.	2d best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	6 00
Dean Valley Stock Farm.....	Linden Heights, O.	3d best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	4 00
L. M. Brownrigg.....	Worthington, O.	4th best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	2 00
Elbert H. Baker.....	Gates Mills, O.	Best junior bull calf dropped since Jan. 1, 1913.....	10 00
W. Henry Bell & Son.....	Scott's Station, Ky.	2d best junior bull calf dropped since Jan. 1, 1913.....	6 00
W. Henry Bell & Son.....	Troy, O.	3d best junior bull calf dropped since Jan. 1, 1913.....	4 00
H. M. Allen.....	Scott's Station, Ky.	4th best junior bull calf dropped since Jan. 1, 1913.....	2 00
W. Henry Bell & Son.....	Scott's Station, Ky.	Best cow 3 years old and over.....	20 00
Elbert H. Baker.....	Gates Mills, O.	2d best cow 3 years old and over.....	10 00
Oak Ridge Farm.....	Oak Ridge, Va.	3d best cow 3 years old and over.....	5 00
Elbert H. Baker.....	Gates Mills, O.	4th best cow 3 years old and over.....	3 00
Oak Ridge Farm.....	Oak Ridge, Va.	Best cow or heifer 2 years old and under 3.....	20 00
W. Henry Bell & Son.....	Scott's Station, Ky.	2d best cow or heifer 2 years old and under 3.....	10 00
Oak Ridge Farm.....	Oak Ridge, Va.	3d best cow or heifer 2 years old and under 3.....	5 00
W. Henry Bell & Son.....	Scott's Station, Ky.	4th best cow or heifer 2 years old and under 3.....	3 00
Elbert H. Baker.....	Gates Mills, O.	Best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	12 00
W. Henry Bell & Son.....	Scott's Station, Ky.	2d best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	6 00
H. M. Allen.....	Troy, O.	3d best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.....	4 00

GUERNSEYS—Concluded.

Name.	Postoffice.	Awards.	Amount.
W. Henry Bell & Son.....	Scott's Station, Ky.....	Best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	\$10 00
H. M. Allen.....	Troy, O.....	2d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	6 00
Oak Ridge Farm.....	Oak Ridge, Va.....	3d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	4 00
Oak Ridge Farm.....	Oak Ridge, Va.....	4th best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.....	2 00
Elbert H. Baker.....	Gates Mills, O.....	Best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	10 00
W. Henry Bell & Son.....	Scott's Station, Ky.....	2d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	6 00
W. Henry Bell & Son.....	Scott's Station, Ky.....	3d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	4 00
Oak Ridge Farm.....	Oak Ridge, Va.....	4th best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	2 00
F. A. Owen.....	Delaware, O.....	Best junior calf dropped since Jan. 1, 1913.....	10 00
Elbert H. Baker.....	Gates Mills, O.....	2d best junior calf dropped since Jan. 1, 1913.....	6 00
Elbert H. Baker.....	Gates Mills, O.....	3d best junior calf dropped since Jan. 1, 1913.....	4 00
Dean Valley Stock Farm.....	Linden Heights, O.....	4th best junior calf dropped since Jan. 1, 1913.....	2 00
W. Henry Bell & Son.....	Scott's Station, Ky.....	Best exhibitor's herd.....	30 00
Elbert H. Baker.....	Gates Mills, O.....	2d best exhibitor's herd.....	20 00
Oak Ridge Farm.....	Oak Ridge, Va.....	3d best exhibitor's herd.....	10 00
W. Henry Bell & Son.....	Scott's Station, Ky.....	Best breeder's young herd.....	30 00
Oak Ridge Farm.....	Oak Ridge, Va.....	2d best breeder's young herd.....	20 00
Dean Valley Stock Farm.....	Linden Heights, O.....	3d best breeder's young herd.....	10 00
W. Henry Bell & Son.....	Scott's Station, Ky.....	Best calf herd.....	25 00
Elbert H. Baker.....	Gates Mills, O.....	2d best calf herd.....	15 00
W. Henry Bell & Son.....	Scott's Station, Ky.....	Best get of sire.....	20 00
W. Henry Bell & Son.....	Scott's Station, Ky.....	2d best get of sire.....	15 00
Oak Ridge Farm.....	Oak Ridge, Va.....	3d best get of sire.....	10 00
Elbert H. Baker.....	Gates Mills, O.....	Best produce of cow.....	15 00
W. Henry Bell & Son.....	Scott's Station, Ky.....	2d best produce of cow.....	10 00
W. Henry Bell & Son.....	Scott's Station, Ky.....	3d best produce of cow.....	5 00
Elbert H. Baker.....	Gates Mills, O.....	Senior champion bull.....	10 00
Elbert H. Baker.....	Gates Mills, O.....	Junior champion bull.....	10 00
W. Henry Bell & Son.....	Scott's Station, Ky.....	Senior champion cow.....	10 00
Elbert H. Baker.....	Gates Mills, O.....	Junior champion female.....	10 00
Elbert H. Baker.....	Gates Mills, O.....	Grand champion bull.....	10 00
W. Henry Bell & Son.....	Scott's Station, Ky.....	Grand champion female.....	10 00

AYRSHIRES.

JUDGE, JOHN C. McNUTT.

Premiums offered.....	\$637 00
Premiums paid.....	594 00
Entries.....	93
Animals shown in ring.....	81

Name.	Postoffice.	Awards.	Amount.
W. P. Schanck.....	Avon, N. Y.....	Best bull 3 years old or over.....	\$20 00
J. F. Converse & Co.....	Woodville, N. Y.....	2d best bull 3 years old or over.....	10 00
J. F. Converse & Co.....	Woodville, N. Y.....	Best bull 2 years old and under 3.....	20 00
W. P. Schanck.....	Avon, N. Y.....	2d best bull 2 years old and under 3.....	10 00
J. A. Stalter.....	Pataskala, O.....	3d best bull 2 years old and under 3.....	5 00
W. P. Schanck.....	Avon, N. Y.....	Best senior yearling bull dropped between Sept. 1, 1911, and Jan. 1, 1912.....	12 00
J. F. Converse & Co.....	Woodville, N. Y.....	2d best senior yearling bull dropped between Sept. 1, 1911, and Jan. 1, 1912.....	6 00
J. A. Stalter.....	Pataskala, O.....	Best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	12 00
J. F. Converse & Co.....	Woodville, N. Y.....	2d best junior yearling bull dropped between Jan. 1, 1912, and Sept. 1, 1912.....	6 00
J. A. Stalter.....	Pataskala, O.....	Best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	12 00
J. F. Converse & Co.....	Woodville, N. Y.....	2d best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	6 00
J. A. Stalter.....	Pataskala, O.....	3d best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	4 00
J. F. Converse & Co.....	Woodville, N. Y.....	4th best senior bull calf dropped between Sept. 1, 1912, and Jan. 1, 1913.....	2 00
J. F. Converse & Co.....	Woodville, N. Y.....	Best junior bull calf dropped since Jan. 1, 1913.....	10 00

AYRSHIRES—Concluded.

Name.	Postoffice.	Awards.	Amount.
J. F. Converse & Co.	Woodville, N. Y.	Best cow 3 years old or over.	\$20 00
W. P. Schanck	Avon, N. Y.	2d best cow 3 years old or over.	10 00
W. P. Schanck	Avon, N. Y.	3d best cow 3 years old or over.	5 00
J. A. Stalter	Pataskala, O.	4th best cow 3 years old or over.	3 00
J. A. Stalter	Pataskala, O.	Best cow or heifer 2 years old and under 3.	20 00
W. P. Schanck	Avon, N. Y.	2d best cow or heifer 2 years old and under 3.	10 00
W. P. Schanck	Avon, N. Y.	3d best cow or heifer 2 years old and under 3.	5 00
J. F. Converse & Co.	Woodville, N. Y.	4th best cow or heifer 2 years old and under 3.	3 00
J. F. Converse & Co.	Woodville, N. Y.	Best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.	12 00
W. P. Schanck	Avon, N. Y.	2d best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.	6 00
J. F. Converse & Co.	Woodville, N. Y.	3d best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.	4 00
J. A. Stalter	Pataskala, O.	4th best senior yearling heifer dropped between Sept. 1, 1911, and Jan. 1, 1912.	2 00
J. A. Stalter	Pataskala, O.	Best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.	10 00
W. P. Schanck	Avon, N. Y.	2d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.	6 00
J. A. Stalter	Pataskala, O.	3d best junior yearling heifer dropped between Jan. 1, 1912, and Sept. 1, 1912.	4 00
W. P. Schanck	Avon, N. Y.	Best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.	10 00
J. F. Converse & Co.	Woodville, N. Y.	2d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.	6 00
J. F. Converse & Co.	Woodville, N. Y.	3d best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.	4 00
W. P. Schanck	Avon, N. Y.	4th best senior heifer calf dropped between Sept. 1, 1912, and Jan. 1, 1913.	2 00
J. A. Stalter	Pataskala, O.	Best junior heifer dropped since Jan. 1, 1913.	10 00
W. P. Schanck	Avon, N. Y.	2d best junior heifer dropped since Jan. 1, 1913.	6 00
W. P. Schanck	Avon, N. Y.	3d best junior heifer dropped since Jan. 1, 1913.	4 00
J. F. Converse & Co.	Woodville, N. Y.	4th best junior heifer dropped since Jan. 1, 1913.	2 00
W. P. Schanck	Avon, N. Y.	Best exhibitor's herd.	30 00
J. F. Converse & Co.	Woodville, N. Y.	2d best exhibitor's herd.	20 00
J. A. Stalter	Pataskala, O.	3d best exhibitor's herd.	10 00
W. P. Schanck	Avon, N. Y.	Best breeder's young herd.	30 00
J. A. Stalter	Pataskala, O.	2d best breeder's young herd.	20 00
J. F. Converse & Co.	Woodville, N. Y.	3d best breeder's young herd.	10 00
W. P. Schanck	Avon, N. Y.	Best calf herd.	25 00
J. F. Converse & Co.	Woodville, N. Y.	2d best calf herd.	15 00
W. P. Schanck	Avon, N. Y.	Best get of sire.	20 00
J. F. Converse & Co.	Woodville, N. Y.	2d best get of sire.	15 00
J. A. Stalter	Pataskala, O.	3d best get of sire.	10 00
W. P. Schanck	Avon, N. Y.	Best produce of cow.	15 00
W. P. Schanck	Avon, N. Y.	2d best produce of cow.	10 00
J. A. Stalter	Pataskala, O.	3d best produce of cow.	5 00
W. P. Schanck	Avon, N. Y.	Senior champion bull.	10 00
W. P. Schanck	Avon, N. Y.	Junior champion bull.	10 00
J. F. Converse & Co.	Woodville, N. Y.	Senior champion cow.	10 00
J. F. Converse & Co.	Woodville, N. Y.	Junior champion female.	10 00
W. P. Schanck	Avon, N. Y.	Grand champion cow.	10 00
J. F. Converse & Co.	Woodville, N. Y.	Grand champion female.	10 00

BROWN SWISS.

JUDGE, JOHN C. McNUTT.

Premiums offered		\$344 00
Premiums paid		320 00
Entries	48	
Animals shown in ring	46	

Name.	Postoffice.	Awards.	Amount.
Hull Bros.	Painesville, O.	Best bull 3 years old or over.	\$15 00
Mrs. D. L. Chase	Marengo, O.	2d best bull 3 years old or over.	10 00
Hull Bros.	Painesville, O.	Best bull 2 years old and under 3.	15 00
A. P. Wampler	Dayton, O., R. 1.	2d best bull 2 years old and under 3.	10 00
Hull Bros.	Painesville, O.	Best bull 1 year old and under 2.	10 00
A. P. Wampler	Dayton, O., R. 1.	2d best bull 1 year old and under 2.	7 00
Hull Bros.	Painesville, O.	Best bull under 1 year old.	8 00
Hull Bros.	Painesville, O.	2d best bull under 1 year old.	5 00
A. P. Wampler	Dayton, O., R. 1.	3d best bull under 1 year old.	3 00
Mrs. D. L. Chase	Marengo, O.	Best cow 3 years old or over.	15 00
Hull Bros.	Painesville, O.	2d best cow 3 years old or over.	10 00
Hull Bros.	Painesville, O.	3d best cow 3 years old or over.	5 00

AGRICULTURAL REPORT.

BROWN SWISS—Concluded.

Name,	Postoffice,	Awards,	Amount.
Mrs. D. L. Chase	Marengo, O.	Best cow or heifer 2 years old and under 3.	\$15 00
A. F. Wampler	Dayton, O., R. 1	2d best cow or heifer 2 years old and under 3.	10 00
Hull Bros	Painesville, O.	3d best cow or heifer 2 years old and under 3.	5 00
Hull Bros	Painesville, O.	Best heifer 1 year old and under 2.	10 00
A. F. Wampler	Dayton, O., R. 1	2d best heifer 1 year old and under 2.	7 00
Hull Bros	Painesville, O.	3d best heifer 1 year old and under 2.	4 00
Hull Bros	Painesville, O.	Best heifer under 1 year old.	8 00
Hull Bros	Painesville, O.	2d best heifer under 1 year old.	5 00
Hull Bros	Painesville, O.	3d best heifer under 1 year old.	3 00
Hull Bros	Painesville, O.	Best exhibitor's herd.	20 00
A. F. Wampler	Dayton, O., R. 1	2d best exhibitor's herd.	15 00
Hull Bros	Painesville, O.	3d best exhibitor's herd.	10 00
A. F. Wampler	Dayton, O., R. 1	Best breeder's young herd.	20 00
Hull Bros	Painesville, O.	2d best breeder's young herd.	15 00
Hull Bros	Painesville, O.	Best get of sire.	15 00
A. F. Wampler	Dayton, O., R. 1	2d best get of sire.	10 00
Hull Bros	Painesville, O.	3d best get of sire.	5 00
A. F. Wampler	Dayton, O., R. 1	Best produce of cow.	15 00
Hull Bros	Painesville, O.	2d best produce of cow.	10 00
Hull Bros	Painesville, O.	3d best produce of cow.	5 00

FAT CATTLE.

JUDGE, J. DICKSON.

Premiums offered		\$250 00
Premiums paid		250 00
Entries	28	
Animals shown in ring	25	

Name.	Postoffice.	Awards.	Amount.
Wilson Bros	Muncie, Ind.	Best steer or spayed heifer 2 years old and under 3	\$30 00
Smith & Wilson	Decatur, Ind.	2d best steer or spayed heifer 2 years old and under 3	20 00
J. H. and Jno. W. Van Natta	Lafayette, Ind.	3d best steer or spayed heifer 2 years old and under 3	10 00
D. Bradfute & Son	Xenia, O.	Best steer or spayed heifer 1 year old and under 2	30 00
J. H. and Jno. W. Van Natta	Lafayette, Ind.	2d best steer or spayed heifer 1 year old and under 2	20 00
Wm. Huffman	Washington C. H., O.	3d best steer or spayed heifer 1 year old and under 2	10 00
J. H. and Jno. W. Van Natta	Lafayette, Ind.	Best steer or spayed heifer under 1 year.	30 00
Luce & Moxley	Shelbyville, Ky.	2d best steer or spayed heifer under 1 year	20 00
Smith & Wilson	Decatur, Ind.	3d best steer or spayed heifer under 1 year.	10 00
J. H. and Jno. W. Van Natta	Lafayette, Ind.	Best exhibitor's herd.	30 00
Wilson Bros	Muncie, Ind.	2d best exhibitor's herd.	20 00
Smith & Wilson	Decatur, Ind.	3d best exhibitor's herd.	10 00
Wilson Bros	Muncie, Ind.	Champion steer or spayed heifer.	10 00

THIRD DEPARTMENT—SWINE.

J. F. CROSS, In Charge

J. MAT CLEVER.....Superintendent
 CHAS. H. WILSON.....Clerk

JUDGES.

MARLEY RILEY, C. W. HAINES and D. W. BROWN.

Received from pen rent, 1913.....	\$515 50
Premiums offered, 1913.....	2,833 00
Premiums paid, 1913.....	2,806 00
Entries, 1913.....	1,324
Animals shown in ring.....	962
Paid superintendent, judges, etc., 1913	\$305 70
Received from pen rent, 1912.....	\$418 80
Premiums offered, 1912.....	2,834 00
Premiums paid, 1912.....	2,773 00
Total number of entries, 1912.....	1,261
Paid superintendent, judges, etc., 1912	\$272 80
Received from pen rent, 1911.....	\$431 25
Premiums offered, 1911.....	3,459 00
Premiums paid, 1911.....	3,421 00
Total number of entries, 1911.....	1,138
Paid superintendent, judges, etc., 1911	\$240 04
Received from pen rent, 1910.....	\$479 00
Premiums offered, 1910.....	2,413 00
Premiums paid, 1910.....	2,192 00
Total number of entries, 1910.....	646
Paid superintendent, judges, etc., 1910	\$199 15

BERKSHIRES.

JUDGE, MARLEY RILEY.

Premiums offered.....	\$446 00
Premiums paid.....	446 00
Entries.....	208
Animals shown in ring.....	150

Name.	Postoffice.	Awards.	Amount.
Elmendorf Farm.....	Thorntown, Ind.	Best boar 2 years or over.....	\$15 00
E. J. Barker.....	Lexington, Ky.	2d best boar 2 years or over.....	10 00
Elmendorf Farm.....	Lexington, Ky.	3d best boar 2 years or over.....	5 00
Elmendorf Farm.....	Lexington, Ky.	Best boar 18 months and under 24 months.....	15 00
Elmendorf Farm.....	Lexington, Ky.	2d best boar 18 months and under 24 months.....	10 00
E. J. Barker.....	Thorntown, Ind.	3d best boar 18 months and under 24 months.....	5 00
Elmendorf Farm.....	Lexington, Ky.	Best boar 12 months and under 18 months.....	10 00
E. J. Barker.....	Thorntown, Ind.	2d best boar 12 months and under 18 months.....	7 00
Townsend Farms.....	New London, O.	3d best boar 12 months and under 18 months.....	4 00
E. J. Barker.....	Thorntown, Ind.	Best boar 6 months and under 1 year.....	10 00
A. E. Fisher.....	Orient, O.	2d best boar 6 months and under 1 year.....	7 00
Elmendorf Farm.....	Lexington, Ky.	3d best boar 6 months and under 1 year.....	4 00
F. E. Kite.....	St. Paris, O.	Best boar under 6 months.....	10 00
F. E. Kite.....	St. Paris, O.	2d best boar under 6 months.....	7 00
Hartman & Plumb.....	No. Fairfield, O.	3d best boar under 6 months.....	4 00
Elmendorf Farm.....	Lexington, Ky.	Best sow 2 years old or over.....	15 00
F. E. Kite.....	St. Paris, O.	2d best sow 2 years old or over.....	10 00
E. J. Barker.....	Thorntown, Ind.	3d best sow 2 years old or over.....	5 00
Elmendorf Farm.....	Lexington, Ky.	Best sow 18 months and under 24 months.....	15 00
E. J. Barker.....	Thorntown, Ind.	2d best sow 18 months and under 24 months.....	10 00
Elmendorf Farm.....	Lexington, Ky.	3d best sow 18 months and under 24 months.....	5 00
E. J. Barker.....	Thorntown, Ind.	Best sow 12 months and under 18 months.....	10 00
E. J. Barker.....	Thorntown, Ind.	2d best sow 12 months and under 18 months.....	7 00
Elmendorf Farm.....	Lexington, Ky.	3d best sow 12 months and under 18 months.....	4 00
E. J. Barker.....	Thorntown, Ind.	Best sow 6 months and under 12 months.....	10 00
Hartman & Plumb.....	No. Fairfield, O.	2d best sow 6 months and under 12 months.....	7 00
Hartman & Plumb.....	No. Fairfield, O.	3d best sow 6 months and under 12 months.....	4 00

BERKSHIRES—Concluded.

Name.	Postoffice.	Awards.	Amount.
E. J. Barker.....	Thorntown, Ind.....	Best sow under 6 months.....	10 00
E. J. Barker.....	Thorntown, Ind.....	2d best sow under 6 months.....	7 00
F. E. Kite.....	St. Paris, O.....	3d best sow under 6 months.....	4 00

BREEDERS' RINGS.

Elmendorf Farm.....	Lexington, Ky.....	Best 4 swine any age, the get of one boar.....	\$20 00
E. J. Barker.....	Thorntown, Ind.....	2d best 4 swine any age, the get of one boar.....	10 00
E. J. Barker.....	Thorntown, Ind.....	3d best 4 swine any age, the get of one boar.....	5 00
F. E. Kite.....	St. Paris, O.....	Best 4 pigs under 6 months, one litter.....	20 00
E. J. Barker.....	Thorntown, Ind.....	2d best 4 pigs under 6 months, one litter.....	10 00
Hartman & Plumb.....	No. Fairfield, O.....	3d best 4 pigs under 6 months, one litter.....	5 00
Elmendorf Farm.....	Lexington, Ky.....	Best exhibitor's herd.....	20 00
E. J. Barker.....	Thorntown, Ind.....	2d best exhibitor's herd.....	10 00
Elmendorf Farm.....	Lexington, Ky.....	3d best exhibitor's herd.....	5 00
E. J. Barker.....	Thorntown, Ind.....	Best breeder's young herd.....	20 00
F. E. Kite.....	St. Paris, O.....	2d best breeder's young herd.....	10 00
Hartman & Plumb.....	No. Fairfield, O.....	3d best breeder's young herd.....	5 00

CHAMPIONS.

E. J. Barker.....	Thorntown, Ind.....	Senior boar 1 year and over.....	\$10 00
E. J. Barker.....	Thorntown, Ind.....	Junior boar under 1 year old.....	10 00
Elmendorf Farm.....	Lexington, Ky.....	Senior sow 1 year and over.....	10 00
E. J. Barker.....	Thorntown, Ind.....	Junior sow under 1 year old.....	10 00

GRAND CHAMPIONS.

E. J. Barker.....	Thorntown, Ind.....	Boar any age.....	\$10 00
Elmendorf Farm.....	Lexington, Ky.....	Sow any age.....	10 00

CHESTER WHITES.

JUDGE, C. W. HAINES.

Premiums offered.....		\$446 00
Premiums paid.....		446 00
Entries.....	150	
Animals shown in ring.....	117	

Name.	Postoffice.	Awards.	Amount.
Chas. Wenger.....	Clayton, O.....	Best boar 2 years or over.....	\$15 00
Fry & Lyons.....	Ansonia, O.....	2d best boar 2 years or over.....	10 00
J. W. Brendel.....	Zionsville, Ind.....	3d best boar 2 years or over.....	5 00
Heskett Bros.....	Fulton, O.....	Best boar 18 months and under 24 months.....	15 00
J. W. Brendel.....	Zionsville, Ind.....	2d best boar 18 months and under 24 months.....	10 00
Adams Bros.....	Litchfield, Mich.....	3d best boar 18 months and under 24 months.....	5 00
F. P. & J. J. Hardin.....	Lima, O.....	Best boar 12 months and under 18 months.....	10 00
Fry & Lyons.....	Ansonia, O.....	2d best boar 12 months and under 18 months.....	7 00
F. P. & J. J. Hardin.....	Lima, O.....	3d best boar 12 months and under 18 months.....	4 00
Chas. Wenger.....	Clayton, O.....	Best boar 6 months and under 1 year.....	10 00
Chas. Wenger.....	Clayton, O.....	2d best boar 6 months and under 1 year.....	7 00
Heskett Bros.....	Fulton, O.....	3d best boar 6 months and under 1 year.....	4 00
Adams Bros.....	Litchfield, Mich.....	Best boar under 6 months.....	10 00
Adams Bros.....	Litchfield, Mich.....	2d best boar under 6 months.....	7 00
Fry & Lyons.....	Ansonia, O.....	3d best boar under 6 months.....	4 00
Fry & Lyons.....	Ansonia, O.....	Best sow 2 years old or over.....	15 00
J. W. Brendel.....	Zionsville, Ind.....	2d best sow 2 years old or over.....	10 00
Adams Bros.....	Litchfield, Mich.....	3d best sow 2 years old or over.....	5 00
J. W. Brendel.....	Zionsville, Ind.....	Best sow 18 months and under 24 months.....	15 00
F. P. & J. J. Hardin.....	Lima, O.....	2d best sow 18 months and under 24 months.....	10 00
Chas. Wenger.....	Clayton, O.....	3d best sow 18 months and under 24 months.....	5 00
Chas. Wenger.....	Clayton, O.....	Best sow 12 months and under 18 months.....	10 00
F. P. & J. J. Hardin.....	Lima, O.....	2d best sow 12 months and under 18 months.....	7 00
Fry & Lyons.....	Ansonia, O.....	3d best sow 12 months and under 18 months.....	4 00
J. W. Brendel.....	Zionsville, Ind.....	Best sow 6 months and under 12 months.....	10 00
F. P. & J. J. Hardin.....	Lima, O.....	2d best sow 6 months and under 12 months.....	7 00
Heskett Bros.....	Fulton, O.....	3d best sow 6 months and under 12 months.....	4 00
F. P. & J. J. Hardin.....	Lima, O.....	Best sow under 6 months.....	10 00
F. P. & J. J. Hardin.....	Lima, O.....	2d best sow under 6 months.....	7 00
F. P. & J. J. Hardin.....	Lima, O.....	3d best sow under 6 months.....	4 00

CHESTER WHITES—Concluded.

Name.	Postoffice.	Awards.	Amount.
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BREEDERS' RINGS.

F. P. and J. J. Hardin	Lima, O.	Best 4 swine any age, the get of one boar	\$20 00
J. W. Brendel	Zionsville, Ind.	2d best 4 swine any age, the get of one boar	10 00
Chas. Wenger	Clayton, O.	3d best 4 swine any age, the get of one boar	5 00
F. P. and J. J. Hardin	Lima, O.	Best 4 pigs under 6 months, one litter	20 00
Fry & Lyons	Ansonia, O.	2d best 4 pigs under 6 months, one litter	10 00
Adams Bros.	Litchfield, Mich.	3d best 4 pigs under 6 months, one litter	5 00
Chas. Wenger	Clayton, O.	Best exhibitor's herd	20 00
J. W. Brendel	Zionsville, Ind.	2d best exhibitor's herd	10 00
Fry & Lyons	Ansonia, O.	3d best exhibitor's herd	5 00
Chas. Wenger	Clayton, O.	Best breeder's young herd	20 00
F. P. and J. J. Hardin	Lima, O.	2d best breeder's young herd	10 00
Heskett Bros.	Fulton, O.	3d best breeder's young herd	5 00

CHAMPIONS.

Chas. Wenger	Clayton, O.	Senior boar 1 year and over	\$10 00
Adams Bros.	Litchfield, Mich.	Junior boar under 1 year old	10 00
Fry & Lyons	Ansonia, O.	Senior sow 1 year and over	10 00
J. W. Brendel	Zionsville, Ind.	Junior sow under 1 year old	10 00

GRAND CHAMPIONS.

Chas. Wenger	Clayton, O.	Boar any age	\$10 00
Fry & Lyons	Ansonia, O.	Sow any age	10 00

POLAND CHINAS.

JUDGE, C. W. HAINES.

Premiums offered		\$446 00
Premiums paid		441 00
Entries	218	
Animals shown in ring	133	

Name.	Postoffice.	Awards.	Amount.
Carl Klever	Bloomingsburg, O.	Best boar 2 years old or over	\$15 00
A. C. Grieve & Sons	Xenia, O.	2d best boar 2 years old or over	10 00
A. C. Grieve & Sons	Xenia, O.	3d best boar 2 years old or over	5 00
Shepard & Osburn	Lockbourne, O.	Best boar 18 months and under 24 months	15 00
J. S. Harmison	Woodstock, O.	2d best boar 18 months and under 24 months	10 00
Chas. E. Keller	Newark, O.	Best boar 12 months and under 18 months	10 00
A. C. Grieve & Sons	Xenia, O.	2d best boar 12 months and under 18 months	7 00
Shepard & Osburn	Lockbourne, O.	3d best boar 12 months and under 18 months	4 00
C. W. Porter	East Millsboro, Pa.	Best boar 6 months and under 1 year	10 00
C. W. Porter	East Millsboro, Pa.	2d best boar 6 months and under 1 year	7 00
J. W. Townsley	Washington C. H., O.	3d best boar 6 months and under 1 year	4 00
Chas. E. Keller	Newark, O.	Best boar under 6 months old	10 00
M. C. Brown & Sons	Martinsville, O.	2d best boar under 6 months old	7 00
Chas. E. Keller	Newark, O.	3d best boar under 6 months old	4 00
A. C. Grieve & Sons	Xenia, O.	Best sow 2 years old or over	15 00
Conrad & Lampka	Troy, O.	2d best sow 2 years old or over	10 00
A. C. Grieve & Sons	Xenia, O.	3d best sow 2 years old or over	5 00
A. C. Grieve & Sons	Xenia, O.	Best sow 18 months and under 24 months	15 00
M. C. Brown & Sons	Martinsville, O.	2d best sow 18 months and under 24 months	10 00
J. S. Harmison	Woodstock, O.	3d best sow 18 months and under 24 months	5 00
Chas. E. Keller	Newark, O.	Best sow 12 months and under 18 months	10 00
A. C. Grieve & Sons	Xenia, O.	2d best sow 12 months and under 18 months	7 00
Chas. E. Keller	Newark, O.	3d best sow 12 months and under 18 months	4 00
J. W. Townsley	Washington C. H., O.	Best sow 6 months and under 12 months	10 00
J. W. Townsley	Washington C. H., O.	2d best sow 6 months and under 12 months	7 00
M. C. Brown & Sons	Martinsville, O.	3d best sow 6 months and under 12 months	4 00
Chas. E. Keller	Newark, O.	Best sow under 6 months	10 00
M. C. Brown & Sons	Martinsville, O.	2d best sow under 6 months	7 00
M. C. Brown & Sons	Martinsville, O.	3d best sow under 6 months	4 00

BREEDERS' RINGS.

Chas. E. Keller	Newark, O.	Best 4 swine any age, the get of one boar	\$20 00
Chas. E. Keller	Newark, O.	2d best 4 swine any age, the get of one boar	10 00
J. W. Townsley	Washington C. H., O.	3d best 4 swine any age, the get of one boar	5 00
Chas. E. Keller	Newark, O.	Best 4 pigs under 6 months, one litter	20 00

POLAND CHINAS—Concluded.

Name.	Postoffice.	Awards.	Amount.
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BREEDERS' RINGS—Concluded.

M. C. Brown & Sons.....	Martinsville, O.....	2d best 4 pigs under 6 months, one litter.....	\$10 00
F. C. Osburn.....	Newark, O.....	3d best 4 pigs under 6 months, one litter.....	5 00
Chas. E. Keller.....	Newark, O.....	Best exhibitor's herd.....	20 00
A. C. Grieve & Sons.....	Xenia, O.....	2d best exhibitor's herd.....	10 00
Shepard & Osburn.....	Lockbourne, O.....	3d best exhibitor's herd.....	5 00
J. W. Townsley.....	Washington C. H., O.....	Best breeder's young herd.....	20 00
Chas. E. Keller.....	Newark, O.....	2d best breeder's young herd.....	10 00
M. C. Brown & Sons.....	Martinsville, O.....	3d best breeder's young herd.....	5 00

CHAMPIONS.

Carl Klever.....	Bloomingsburg, O.....	Senior boar 1 year and over.....	\$10 00
Chas. E. Keller.....	Newark, O.....	Junior boar under 1 year old.....	10 00
Chas. E. Keller.....	Newark, O.....	Senior sow 1 year and over.....	10 00
J. W. Townsley.....	Washington C. H., O.....	Junior sow under 1 year old.....	10 00

GRAND CHAMPIONS.

Carl Klever.....	Bloomingsburg, O.....	Boar any age.....	\$10 00
Chas. E. Keller.....	Newark, O.....	Sow any age.....	10 00

HAMPSHIRE.

JUDGE, C. W. HAINES.

Premiums offered.....			\$446 00
Premiums paid.....			446 00
Entries.....		146	
Animals shown in ring.....		109	

Name.	Postoffice.	Awards.	Amount.
Dan W. Castor.....	Bellville, O.....	Best boar 2 years or over.....	\$15 00
Sylvester Essig.....	Tipton, Ind.....	2d best boar 2 years or over.....	10 00
John W. Winchet.....	Dayton, O.....	3d best boar 2 years or over.....	5 00
Sylvester Essig.....	Tipton, Ind.....	Best boar 18 months and under 24 months.....	15 00
Dan W. Castor.....	Bellville, O.....	2d best boar 18 months and under 24 months.....	10 00
Harris & Dildine.....	Richwood, O.....	3d best boar 18 months and under 24 months.....	5 00
Alt & Gilliland.....	Rockford, O.....	Best boar 12 months and under 18 months.....	10 00
Sylvester Essig.....	Tipton, Ind.....	2d best boar 12 months and under 18 months.....	7 00
John W. Winchet.....	Dayton, O.....	3d best boar 12 months and under 18 months.....	4 00
John W. Winchet.....	Dayton, O.....	Best boar 6 months and under 1 year.....	10 00
Alt & Gilliland.....	Rockford, O.....	2d best boar 6 months and under 1 year.....	7 00
Sylvester Essig.....	Tipton, Ind.....	3d best boar 6 months and under 1 year.....	4 00
Alt & Gilliland.....	Rockford, O.....	Best boar under 6 months.....	10 00
Dan W. Castor.....	Bellville, O.....	2d best boar under 6 months.....	7 00
Sylvester Essig.....	Tipton, Ind.....	3d best boar under 6 months.....	4 00
Dan W. Castor.....	Bellville, O.....	Best sow 2 years old or over.....	15 00
Sylvester Essig.....	Tipton, Ind.....	2d best sow 2 years old or over.....	10 00
John W. Winchet.....	Dayton, O.....	3d best sow 2 years old or over.....	5 00
Dan W. Castor.....	Bellville, O.....	Best sow 18 months and under 24 months.....	15 00
Sylvester Essig.....	Tipton, Ind.....	2d best sow 18 months and under 24 months.....	10 00
Sylvester Essig.....	Tipton, Ind.....	3d best sow 18 months and under 24 months.....	5 00
Dan W. Castor.....	Bellville, O.....	Best sow 12 months and under 18 months.....	10 00
Sylvester Essig.....	Tipton, Ind.....	2d best sow 12 months and under 18 months.....	7 00
Alt & Gilliland.....	Rockford, O.....	3d best sow 12 months and under 18 months.....	4 00
Sylvester Essig.....	Tipton, Ind.....	Best sow 6 months and under 12 months.....	10 00
Alt & Gilliland.....	Rockford, O.....	2d best sow 6 months and under 12 months.....	7 00
Harris & Dildine.....	Richwood, O.....	3d best sow 6 months and under 12 months.....	4 00
Alt & Gilliland.....	Rockford, O.....	Best sow under 6 months.....	10 00
Sylvester Essig.....	Tipton, Ind.....	2d best sow under 6 months.....	7 00
Dan W. Castor.....	Bellville, O.....	3d best sow under 6 months.....	4 00

BREEDERS' RINGS.

Sylvester Essig.....	Tipton, Ind.....	Best 4 swine any age, the get of one boar.....	\$20 00
Alt & Gilliland.....	Rockford, O.....	2d best 4 swine any age, the get of one boar.....	10 00
Dan W. Castor.....	Bellville, O.....	3d best 4 swine any age, the get of one boar.....	5 00
Alt & Gilliland.....	Rockford, O.....	Best 4 pigs under 6 months, one litter.....	20 00
Sylvester Essig.....	Tipton, Ind.....	2d best 4 pigs under 6 months, one litter.....	10 00
John W. Winchet.....	Dayton, O.....	3d best 4 pigs under 6 months, one litter.....	5 00
Dan W. Castor.....	Bellville, O.....	Best exhibitor's herd.....	20 00

HAMPSHIRE—Concluded.

Name.	Postoffice.	Awards.	Amount.
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BREEDERS' RINGS—Concluded.

Alt & Gilliland.....	Rockford, O.....	2d best exhibitor's herd.....	\$10 00
John W. Winchet.....	Dayton, O.....	3d best exhibitor's herd.....	5 00
Alt & Gilliland.....	Rockford, O.....	Best breeder's young herd.....	20 00
John W. Winchet.....	Dayton, O.....	2d best breeder's young herd.....	10 00
Sylvester Essig.....	Tipton, Ind.....	3d best breeder's young herd.....	5 00

CHAMPIONS.

Sylvester Essig.....	Tipton, Ind.....	Senior boar 1 year and over.....	\$10 00
John W. Winchet.....	Dayton, O.....	Junior boar under 1 year old.....	10 00
Dan W. Castor.....	Bellville, O.....	Senior sow 1 year and over.....	10 00
Alt & Gilliland.....	Rockford, O.....	Junior sow under 1 year old.....	10 00

GRAND CHAMPIONS.

Sylvester Essig.....	Tipton, Ind.....	Boar any age.....	\$10 00
Dan W. Castor.....	Bellville, O.....	Sow any age.....	10 00

DUROC JERSEYS.

JUDGE, D. W. BROWN.

Premiums offered.....		\$446 00
Premiums paid.....		446 00
Entries.....	342	
Animals shown in ring.....	299	

Name.	Postoffice.	Awards.	Amount.
Mahan Bros.....	Osborn, O.....	Best boar 2 years old or over.....	\$15 00
Watt & Foust.....	Cedarville & Xenia, O.....	2d best boar 2 years old or over.....	10 00
E. C. Stemen & Sons.....	Middelpoint, O.....	3d best boar 2 years old or over.....	5 00
Ira Jackson & Sprague.....	Tippecanoe City, O.....	Best boar 18 months and under 24 months.....	15 00
Mahan Bros.....	Osborn, O.....	2d best boar 18 months and under 24 months.....	10 00
O. A. Klever.....	Bloomington, O.....	3d best boar 18 months and under 24 months.....	5 00
E. C. Stemen & Sons.....	Middelpoint, O.....	Best boar 12 months and under 18 months.....	10 00
Chas. J. Stuckey & Son.....	Mechanicsburg, O.....	2d best boar 12 months and under 18 months.....	7 00
McKee Bros.....	Versailles, Ky.....	3d best boar 12 months and under 18 months.....	4 00
Ira Jackson & Sprague.....	Tippecanoe City, O.....	Best boar 6 months and under 1 year.....	10 00
Mahan Bros.....	Osborn, O.....	2d best boar 6 months and under 1 year.....	7 00
Watt & Foust.....	Cedarville & Xenia, O.....	3d best boar 6 months and under 1 year.....	4 00
Ira Jackson & Sprague.....	Tippecanoe City, O.....	Best boar under 6 months.....	10 00
Watt & Foust.....	Cedarville & Xenia, O.....	2d best boar under 6 months.....	7 00
W. P. Baker.....	Wilmington, O.....	3d best boar under 6 months.....	4 00
Mahan Bros.....	Osborn, O.....	Best sow 2 years old or over.....	15 00
E. C. Stemen & Sons.....	Middelpoint, O.....	2d best sow 2 years old or over.....	10 00
Mahan Bros.....	Osborn, O.....	3d best sow 2 years old or over.....	5 00
Ira Jackson & Sprague.....	Tippecanoe City, O.....	Best sow 18 months and under 24 months.....	15 00
Watt & Foust.....	Cedarville & Xenia, O.....	2d best sow 18 months and under 24 months.....	10 00
Ira Jackson & Sprague.....	Tippecanoe City, O.....	3d best sow 18 months and under 24 months.....	5 00
Mahan Bros.....	Osborn, O.....	Best sow 12 months and under 18 months.....	10 00
Ira Jackson & Sprague.....	Tippecanoe City, O.....	2d best sow 12 months and under 18 months.....	7 00
McKee Bros.....	Versailles, Ky.....	3d best sow 12 months and under 18 months.....	4 00
Watt & Foust.....	Cedarville & Xenia, O.....	Best sow 6 months and under 12 months.....	10 00
Ira Jackson & Sprague.....	Tippecanoe City, O.....	2d best sow 6 months and under 12 months.....	7 00
Wilson Mount.....	Mt. Orab, O.....	3d best sow 6 months and under 12 months.....	4 00
Watt & Foust.....	Cedarville & Xenia, O.....	Best sow under 6 months.....	10 00
Watt & Foust.....	Cedarville & Xenia, O.....	2d best sow under 6 months.....	7 00
Ira Jackson & Sprague.....	Tippecanoe City, O.....	3d best sow under 6 months.....	4 00

BREEDERS' RINGS.

Ira Jackson & Sprague.....	Tippecanoe City, O.....	Best 4 swine any age, the get of one boar.....	\$20 00
Watt & Foust.....	Cedarville & Xenia, O.....	2d best 4 swine any age, the get of one boar.....	10 00
Ira Jackson & Sprague.....	Tippecanoe City, O.....	3d best 4 swine any age, the get of one boar.....	5 00
Watt & Foust.....	Cedarville & Xenia, O.....	Best 4 pigs under 6 months, one litter.....	20 00
Ira Jackson & Sprague.....	Tippecanoe City, O.....	2d best 4 pigs under 6 months, one litter.....	10 00
W. P. Baker.....	Wilmington, O.....	3d best 4 pigs under 6 months, one litter.....	5 00
Ira Jackson & Sprague.....	Tippecanoe City, O.....	Best exhibitor's herd.....	20 00
Mahan Bros.....	Osborn, O.....	2d best exhibitor's herd.....	10 00
Watt & Foust.....	Cedarville & Xenia, O.....	3d best exhibitor's herd.....	5 00
Ira Jackson & Sprague.....	Tippecanoe City, O.....	Best breeder's young herd.....	20 00
Watt & Foust.....	Cedarville & Xenia, O.....	2d best breeder's young herd.....	10 00
Mahan Bros.....	Osborn, O.....	3d best breeder's young herd.....	5 00

DUROC JERSEYS—Concluded.

Name.	Postoffice.	Awards.	Amount.
CHAMPIONS.			
Ira Jackson & Sprague.....	Tippecanoe City, O.....	Senior boar 1 year and over.....	\$10 00
Ira Jackson & Sprague.....	Tippecanoe City, O.....	Junior boar under 1 year old.....	10 00
Mahan Bros.....	Osborn, O.....	Senior sow 1 year and over.....	10 00
Watt & Foust.....	Cedarville & Xenia, O.....	Junior sow under 1 year old.....	10 00
GRAND CHAMPIONS.			
Ira Jackson & Sprague.....	Tippecanoe City, O.....	Boar any age.....	\$10 00
Mahan Bros.....	Osborn, O.....	Sow any age.....	10 00

YORKSHIRES.

JUDGE, C. W. HAINES.

Premiums offered.....		\$227 00
Premiums paid.....		214 00
Entries.....	53	
Animals shown in ring.....	47	

Name.	Postoffice.	Awards.	Amount.
W. E. Kite.....	St. Paris, O.....	Best boar 2 years old or over.....	\$12 00
W. H. Fisher.....	Columbus, O.....	2d best boar 2 years old or over.....	6 00
Illinois Printing Co.....	Danville, Ill.....	3d best boar 2 years old or over.....	3 00
W. H. Fisher.....	Columbus, O.....	Best boar 18 months and under 24 months.....	12 00
Illinois Printing Co.....	Danville, Ill.....	2d best boar 18 months and under 24 months.....	6 00
F. E. Kite.....	St. Paris, O.....	Best boar 12 months and under 18 months.....	8 00
Illinois Printing Co.....	Danville, Ill.....	2d best boar 12 months and under 18 months.....	4 00
F. E. Kite.....	St. Paris, O.....	Best boar under 12 months and over 6 months.....	8 00
W. H. Fisher.....	Columbus, O.....	2d best boar under 12 months and over 6 months.....	4 00
Illinois Printing Co.....	Danville, Ill.....	Best boar under 6 months old.....	6 00
W. H. Fisher.....	Columbus, O.....	2d best boar under 6 months old.....	3 00
W. H. Fisher.....	Columbus, O.....	3d best boar under 6 months old.....	2 00
F. E. Kite.....	St. Paris, O.....	Best sow 2 years old or over.....	12 00
Illinois Printing Co.....	Danville, Ill.....	2d best sow 2 years old or over.....	6 00
Illinois Printing Co.....	Danville, Ill.....	3d best sow 2 years old or over.....	3 00
F. E. Kite.....	St. Paris, O.....	Best sow 18 months and under 24 months.....	8 00
W. H. Fisher.....	Columbus, O.....	2d best sow 18 months and under 24 months.....	4 00
F. E. Kite.....	St. Paris, O.....	3d best sow 18 months and under 24 months.....	2 00
F. E. Kite.....	St. Paris, O.....	Best sow 12 months and under 18 months.....	8 00
Illinois Printing Co.....	Danville, Ill.....	2d best sow 12 months and under 18 months.....	4 00
Illinois Printing Co.....	Danville, Ill.....	3d best sow 12 months and under 18 months.....	2 00
F. E. Kite.....	St. Paris, O.....	Best sow under 12 months and over 6 months.....	8 00
F. E. Kite.....	St. Paris, O.....	2d best sow under 12 months and over 6 months.....	4 00
W. H. Fisher.....	Columbus, O.....	3d best sow under 12 months and over 6 months.....	2 00
W. H. Fisher.....	Columbus, O.....	Best sow under 6 months old.....	6 00
F. E. Kite.....	St. Paris, O.....	2d best sow under 6 months old.....	3 00
F. E. Kite.....	St. Paris, O.....	3d best sow under 6 months old.....	2 00

BREEDERS' RINGS.

F. E. Kite.....	St. Paris, O.....	Best 4 swine any age, the get of 1 boar.....	\$12 00
W. H. Fisher.....	Columbus, O.....	2d best 4 swine any age, the get of 1 boar.....	6 00
W. H. Fisher.....	Columbus, O.....	Best 4 pigs under 12 months old, one litter.....	12 00

EXHIBITORS' HERD.

F. E. Kite.....	St. Paris, O.....	Best boar and 3 sows all over 1 year old, owned by exhibitor.....	\$12 00
W. H. Fisher.....	Columbus, O.....	2d best boar and 3 sows all over 1 year old, owned by exhibitor.....	6 00
W. H. Fisher.....	Columbus, O.....	Best boar and 3 sows all under 1 year, owned by exhibitor.....	12 00
F. E. Kite.....	St. Paris, O.....	2d best boar and 3 sows all under 1 year, owned by exhibitor.....	6 00

TAMWORTHS.

JUDGE, D. W. BROWN.

Premiums offered.....		\$188 00
Premiums paid.....		183 00
Entries.....	91	
Animals shown in ring.....	62	

Name.	Postoffice.	Awards.	Amount.
Elmendorf Farm.....	Lexington, Ky.....	Best boar 2 years old or over.....	\$10 00
Oak Ridge Farm.....	Oak Ridge, Va.....	2d best boar 2 years old or over.....	5 00
Adams Bros.....	Litchfield, Mich.....	Best boar 18 months and under 24 months.....	10 00
Oak Ridge Farm.....	Oak Ridge, Va.....	Best boar 12 months and under 18 months.....	7 00
Adams Bros.....	Litchfield, Mich.....	2d best boar 12 months and under 18 months.....	4 00
Elmendorf Farm.....	Lexington, Ky.....	Best boar under 12 months and over 6 months.....	7 00
Oak Ridge Farm.....	Oak Ridge, Va.....	2d best boar under 12 months and over 6 months.....	4 00
Oak Ridge Farm.....	Oak Ridge, Va.....	Best boar under 6 months.....	5 00
Oak Ridge Farm.....	Oak Ridge, Va.....	2d best boar under 6 months.....	3 00
Oak Ridge Farm.....	Oak Ridge, Va.....	Best sow 2 years old or over.....	10 00
Elmendorf Farm.....	Lexington, Ky.....	2d best sow 2 years old or over.....	5 00
Elmendorf Farm.....	Lexington, Ky.....	Best sow 18 months and under 24 months.....	7 00
Elmendorf Farm.....	Lexington, Ky.....	2d best sow 18 months and under 24 months.....	4 00
Oak Ridge Farm.....	Oak Ridge, Va.....	Best sow 12 months and under 18 months.....	7 00
Oak Ridge Farm.....	Oak Ridge, Va.....	2d best sow 12 months and under 18 months.....	4 00
Elmendorf Farm.....	Lexington, Ky.....	Best sow under 12 months and over 6 months.....	7 00
Oak Ridge Farm.....	Oak Ridge, Va.....	2d best sow under 12 months and over 6 months.....	4 00
Oak Ridge Farm.....	Oak Ridge, Va.....	Best sow under 6 months old.....	5 00
Oak Ridge Farm.....	Oak Ridge, Va.....	2d best sow under 6 months old.....	3 00

BREEDERS' RINGS.

Oak Ridge Farm.....	Oak Ridge, Va.....	Best 4 swine any age, the get of 1 boar.....	\$12 00
Elmendorf Farm.....	Lexington, Ky.....	2d best 4 swine any age, the get of 1 boar.....	6 00
Elmendorf Farm.....	Lexington, Ky.....	Best 4 pigs under 12 months old, 1 litter.....	12 00
Adams Bros.....	Litchfield, Mich.....	2d best 4 pigs under 12 months old, 1 litter.....	6 00

EXHIBITORS' HERD.

Elmendorf Farm.....	Lexington, Ky.....	Best boar and 3 sows, all over 1 year old, owned by exhibitor.....	\$12 00
Oak Ridge Farm.....	Oak Ridge, Va.....	2d best boar and 3 sows, all over 1 year old, owned by exhibitor.....	6 00
Elmendorf Farm.....	Lexington, Ky.....	Best boar and 3 sows, all under 1 year, owned by exhibitor.....	12 00
Oak Ridge Farm.....	Oak Ridge, Va.....	2d best boar and 3 sows, all under 1 year, owned by exhibitor.....	6 00

MULE FOOTS.

JUDGE, MARLEY RILEY.

Premiums offered.....		\$188 00
Premiums paid.....		184 00
Entries.....	107	
Animals shown in ring.....	45	

Name.	Postoffice.	Awards.	Amount.
Glenview Farm.....	Wilmington, O.....	Best boar 2 years old or over.....	\$10 00
Long Bros.....	Alvada, O.....	2d best boar 2 years old or over.....	5 00
Glenview Farm.....	Wilmington, O.....	Best boar 18 months and under 24 months.....	10 00
Custard Bros.....	Pleasantville, O.....	2d best boar 18 months and under 24 months.....	5 00
Glenview Farm.....	Wilmington, O.....	Best boar 12 months and under 18 months.....	7 00
Long Bros.....	Alvada, O.....	Best boar under 12 months and over 6 months.....	7 00
Long Bros.....	Alvada, O.....	2d best boar under 12 months and over 6 months.....	4 00
Long Bros.....	Alvada, O.....	Best boar under 6 months.....	5 00
Long Bros.....	Alvada, O.....	2d best boar under 6 months.....	3 00
Glenview Farm.....	Wilmington, O.....	Best sow 2 years old or over.....	10 00
Long Bros.....	Alvada, O.....	2d best sow 2 years old or over.....	5 00
Long Bros.....	Alvada, O.....	Best sow 18 months and under 24 months.....	7 00
Glenview Farm.....	Wilmington, O.....	2d best sow 18 months and under 24 months.....	4 00
Long Bros.....	Alvada, O.....	Best sow 12 months and under 18 months.....	7 00
Long Bros.....	Alvada, O.....	2d best sow 12 months and under 18 months.....	4 00
Long Bros.....	Alvada, O.....	Best sow under 12 months and over 6 months.....	7 00
Glenview Farm.....	Wilmington, O.....	2d best sow under 12 months and over 6 months.....	4 00
Long Bros.....	Alvada, O.....	Best sow under 6 months old.....	5 00
Glenview Farm.....	Wilmington, O.....	2d best sow under 6 months old.....	3 00

MULE FOOTS—Concluded.

Name.	Postoffice.	Awards.	Amount.
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BREEDERS' RINGS.

Long Bros.....	Alvada, O.....	Best 4 swine, any age, the get of 1 boar.....	\$12 00
Glenview Farm.....	Wilmington, O.....	2d best 4 swine, any age, the get of 1 boar.....	6 00
Long Bros.....	Alvada, O.....	Best 4 pigs under 12 months old, 1 litter.....	12 00
Custard Bros.....	Pleasantville, O.....	2d best 4 pigs under 12 months old, 1 litter.....	6 00

EXHIBITORS' HERD.

Long Bros.....	Alvada, O.....	Best boar and 3 sows all over 1 year old, owned by exhibitor.....	\$12 00
Glenview Farm.....	Wilmington, O.....	2d best boar and 3 sows all over 1 year old, owned by exhibitor.....	6 00
Long Bros.....	Alvada, O.....	Best boar and 3 sows all under 1 year old, owned by exhibitor.....	12 00
Glenview Farm.....	Wilmington, O.....	2d best boar and 3 sows all under 1 year old, owned by exhibitor.....	6 00

FOURTH DEPARTMENT—SHEEP.

C. W. McFARLAND, In Charge.

O. J. MILLER.....Superintendent
C. D. ROYER.....Clerk

JUDGES.

R. A. HAYNE, J. H. McMULLAN, D. B. WATT, A. G. DANKS.

Received from pen rent, 1913.....\$312 00
Premiums offered, 1913.....3,732 00
Premiums paid, 1913.....3,536 00
 Entries, 1913.....1,294
 Animals shown in ring.....857

WOOL EXHIBIT.

Premiums offered.....\$205 00
Premiums paid.....83 00
 Entries, 1913.....55
 Shown in ring.....36
Paid superintendent, judges, etc., 1913.....\$286 50
Received from pen rent, 1912.....\$337 00
Premiums offered, 1912.....3,942 00
Premiums paid, 1912.....3,760 00
 Total Number of Entries, 1912.....1,495
Paid superintendent, judges, etc., 1912.....\$221 50
Received from pen rent, 1911.....\$357 50
Premiums offered, 1911.....3,894 00
Premiums paid, 1911.....3,687 00
 Total Number of Entries, 1911.....1,579
Paid superintendent, judges, etc., 1911.....\$215 60
Received from pen rent, 1910.....\$512 50
Premiums offered, 1910.....3,584 00
Premiums paid, 1910.....3,412 00
 Total Number of Entries, 1910.....1,234
Paid superintendent, judges, etc., 1910.....\$217 30

MERINOS—CLASS A.

JUDGE, R. A. HAYNE.

Premiums offered.....\$354 00
Premiums paid.....345 00
 Entries.....132
 Animals shown in ring.....80

Name.	Postoffice.	Awards.	Amount.
J. J. Deeds & Son.....	Pataskala, O.	Best ram 2 years old or over.....	\$12 00
W. M. Staley.....	Marysville, O.	2d best ram 2 years old or over.....	10 00
R. D. Williamson & Son.....	Xenia, O.	3d best ram 2 years old or over.....	8 00
R. D. Williamson & Son.....	Xenia, O.	4th best ram 2 years old or over.....	6 00
J. J. Deeds & Son.....	Pataskala, O.	5th best ram 2 years old or over.....	4 00
W. M. Staley.....	Marysville, O.	6th best ram 2 years old or over.....	3 00
S. Blamer & Son.....	Johnstown, O.	7th best ram 2 years old or over.....	2 00
Freed & Stuart.....	Lancaster, O.	8th best ram 2 years old or over.....	1 00
A. H. Dean & Son.....	W. Mansfield, O.	Best ram 1 year old and under 2.....	12 00
R. D. Williamson & Son.....	Xenia, O.	2d best ram 1 year old and under 2.....	10 00
S. Blamer & Son.....	Johnstown, O.	3d best ram 1 year old and under 2.....	8 00
E. E. Cleaver.....	W. Brownsville, Pa.	4th best ram 1 year old and under 2.....	6 00
Freed & Stuart.....	Lancaster, O.	5th best ram 1 year old and under 2.....	4 00
W. M. Staley.....	Marysville, O.	6th best ram 1 year old and under 2.....	3 00
W. M. Staley.....	Marysville, O.	7th best ram 1 year old and under 2.....	2 00
S. Blamer & Son.....	Johnstown, O.	8th best ram 1 year old and under 2.....	1 00
R. D. Williamson & Son.....	Xenia, O.	Best ram lamb.....	12 00
J. J. Deeds & Son.....	Pataskala, O.	2d best ram lamb.....	10 00
S. Blamer & Son.....	Johnstown, O.	3d best ram lamb.....	8 00
Samuel Owen & Son.....	Seville, O.	4th best ram lamb.....	6 00

MERINOS—CLASS A—Concluded.

Name.	Postoffice.	Awards.	Amount.
J. Krantz & Son.....	Canal Dover, O.....	5th best ram lamb.....	\$4 00
Freed & Stuart.....	Lancaster, O.....	6th best ram lamb.....	3 00
A. H. Dean & Son.....	W. Mansfield, O.....	7th best ram lamb.....	2 00
E. E. Cleaver.....	W. Brownsville, Pa.....	8th best ram lamb.....	1 00
Ira A. Cleaver.....	W. Brownsville, Pa.....	Best ewe 2 years old and over.....	12 00
A. H. Dean & Son.....	W. Mansfield, O.....	2d best ewe 2 years old or over.....	10 00
R. D. Williamson & Son.....	Xenia, O.....	3d best ewe 2 years old or over.....	8 00
S. Blamer & Son.....	Johnstown, O.....	4th best ewe 2 years old or over.....	6 00
Ira A. Cleaver.....	W. Brownsville, Pa.....	5th best ewe 2 years old or over.....	4 00
A. H. Dean & Son.....	West Mansfield, O.....	6th best ewe 2 years old or over.....	3 00
J. J. Deeds & Son.....	Pataskala, O.....	7th best ewe 2 years old or over.....	2 00
Freed & Stuart.....	Lancaster, O.....	8th best ewe 2 years old or over.....	1 00
W. M. Staley.....	Marysville, O.....	Best ewe 1 year old and under 2.....	12 00
J. J. Deeds & Son.....	Pataskala, O.....	2d best ewe 1 year old and under 2.....	10 00
A. H. Dean & Son.....	W. Mansfield, O.....	3d best ewe 1 year old and under 2.....	8 00
Ira A. Cleaver.....	W. Brownsville, Pa.....	4th best ewe 1 year old and under 2.....	6 00
Freed & Stuart.....	Lancaster, O.....	5th best ewe 1 year old and under 2.....	4 00
J. J. Deeds & Son.....	Pataskala, O.....	6th best ewe 1 year old and under 2.....	3 00
R. D. Williamson & Son.....	Xenia, O.....	7th best ewe 1 year old and under 2.....	2 00
Ira A. Cleaver.....	W. Brownsville, Pa.....	8th best ewe 1 year old and under 2.....	1 00
R. D. Williamson & Son.....	Xenia, O.....	Best ewe lamb.....	12 00
J. F. Walker.....	Gambier, O.....	2d best ewe lamb.....	10 00
Ira A. Cleaver.....	W. Brownsville, Pa.....	3d best ewe lamb.....	8 00
J. Krantz & Son.....	Canal Dover, O.....	4th best ewe lamb.....	6 00
W. M. Staley.....	Marysville, O.....	5th best ewe lamb.....	4 00
J. J. Deeds & Son.....	Pataskala, O.....	6th best ewe lamb.....	3 00
A. H. Dean & Son.....	W. Mansfield, O.....	7th best ewe lamb.....	2 00
S. Blamer & Son.....	Johnstown, O.....	8th best ewe lamb.....	1 00
A. H. Dean & Son.....	W. Mansfield, O.....	Best exhibitor's flock.....	Ribbon
J. J. Deeds & Son.....	Pataskala, O.....	2d best exhibitor's flock.....	Ribbon
R. D. Williamson & Son.....	Xenia, O.....	3d best exhibitor's flock.....	Ribbon
Ira A. Cleaver.....	W. Brownsville, Pa.....	4th best exhibitor's flock.....	Ribbon
W. M. Staley.....	Marysville, O.....	Best breeder's young flock.....	12 00
J. J. Deeds & Son.....	Pataskala, O.....	2d best breeder's young flock.....	10 00
Ira A. Cleaver.....	W. Brownsville, Pa.....	3d best breeder's young flock.....	8 00
W. M. Staley.....	Marysville, O.....	Best pen.....	12 00
J. Krantz & Son.....	Canal Dover, O.....	2d best pen.....	10 00
J. J. Deeds & Son.....	Pataskala, O.....	3d best pen.....	8 00
A. H. Dean & Son.....	W. Mansfield, O.....	4th best pen.....	6 00
Ira A. Cleaver.....	W. Brownsville, Pa.....	5th best pen.....	3 00
R. D. Williamson & Son.....	Xenia, O.....	Champion ram any age.....	Ribbon.
J. J. Deeds & Son.....	Pataskala, O.....	2d ram any age.....	Reserve
S. M. Cleaver.....	Delaware, O.....	Grand champion ram.....	Ribbon.

MERINOS—CLASS B.

JUDGE, R. A. HAYNE.

Premiums offered.....	\$354 00
Premiums paid.....	345 00
Entries.....	186
Animals shown in ring.....	112

Name.	Postoffice.	Awards.	Amount.
S. Blamer & Son.....	Johnstown, O.....	Best ram 2 years old or over.....	\$12 00
W. M. Staley.....	Marysville, O.....	2d best ram 2 years old or over.....	10 00
A. H. Dean & Son.....	W. Mansfield, O.....	3d best ram 2 years old or over.....	8 00
R. D. Williamson & Son.....	Xenia, O.....	4th best ram 2 years old or over.....	6 00
Freed & Stuart.....	Lancaster, O.....	5th best ram 2 years old or over.....	4 00
J. Krantz & Son.....	Canal Dover, O.....	6th best ram 2 years old or over.....	3 00
J. I. Liles.....	Collins, O.....	7th best ram 2 years old or over.....	2 00
Freed & Stuart.....	Lancaster, O.....	8th best ram 2 years old or over.....	1 00
W. N. Cook & Son.....	New London, O.....	Best ram 1 year old and under 2.....	12 00
W. M. Staley.....	Marysville, O.....	2d best ram 1 year old and under 2.....	10 00
A. H. Dean & Son.....	W. Mansfield O.....	3d best ram 1 year old and under 2.....	8 00
R. D. Williamson & Son.....	Xenia, O.....	4th best ram 1 year old and under 2.....	6 00
W. M. Staley.....	Marysville, O.....	5th best ram 1 year old and under 2.....	4 00
Ira A. Cleaver.....	W. Brownsville, Pa.....	6th best ram 1 year old and under 2.....	3 00
Samuel Owen & Son.....	Seville, O.....	7th best ram 1 year old and under 2.....	2 00
W. N. Cook & Son.....	New London, O.....	8th best ram 1 year old and under 2.....	1 00
Samuel Owen & Son.....	Seville, O.....	Best ram lamb.....	12 00
Ira A. Cleaver.....	W. Brownsville, Pa.....	2d best ram lamb.....	10 00
J. I. Liles.....	Collins, O.....	3d best ram lamb.....	8 00
J. J. Deeds & Son.....	Pataskala, O.....	4th best ram lamb.....	6 00
W. M. Staley.....	Marysville, O.....	5th best ram lamb.....	4 00

MERINOS—CLASS B—Concluded.

Name.	Postoffice.	Awards.	Amount.
R. D. Williamson & Son	Xenia, O.	6th best ram lamb.	\$3 00
W. N. Cook & Son	New London, O.	7th best ram lamb.	2 00
Ira A. Cleaver	W. Brownsville, Pa.	8th best ram lamb.	1 00
R. D. Williamson & Son	Xenia, O.	Best ewe 2 years old or over.	12 00
W. M. Staley	Marysville, O.	2d best ewe 2 years old or over.	10 00
S. Blamer & Son	Johnstown, O.	3d best ewe 2 years old or over.	8 00
J. J. Deeds & Son	Pataskala, O.	4th best ewe 2 years old or over.	6 00
Samuel Owen & Son	Seville, O.	5th best ewe 2 years old or over.	4 00
Samuel Owen & Son	Seville, O.	6th best ewe 2 years old or over.	3 00
R. D. Williamson & Son	Xenia, O.	7th best ewe 2 years old or over.	2 00
W. N. Cook & Son	New London, O.	8th best ewe 2 years old or over.	1 00
R. D. Williamson & Son	Xenia, O.	Best ewe 1 year and under 2.	12 00
Ira A. Cleaver	W. Brownsville, Pa.	2d best ewe 1 year and under 2.	10 00
S. Blamer & Son	Johnstown, O.	3d best ewe 1 year and under 2.	8 00
J. I. Liles	Collins, O.	4th best ewe 1 year and under 2.	6 00
A. H. Dean & Son	W. Mansfield, O.	5th best ewe 1 year and under 2.	4 00
Ira A. Cleaver	W. Brownsville, Pa.	6th best ewe 1 year and under 2.	3 00
W. M. Staley	Marysville, O.	7th best ewe 1 year and under 2.	2 00
W. N. Cook & Son	New London, O.	8th best ewe 1 year and under 2.	1 00
W. M. Staley	Marysville, O.	Best ewe lamb.	12 00
Samuel Owen & Son	Seville, O.	2d best ewe lamb.	10 00
R. D. Williamson & Son	Xenia, O.	3d best ewe lamb.	8 00
Samuel Owen & Son	Seville, O.	4th best ewe lamb.	6 00
W. N. Cook & Son	New London, O.	5th best ewe lamb.	4 00
S. Blamer & Son	Johnstown, O.	6th best ewe lamb.	3 00
J. F. Walker	Gambier, O.	7th best ewe lamb.	2 00
A. H. Dean & Son	W. Mansfield, O.	8th best ewe lamb.	1 00
S. Blamer & Son	Johnstown, O.	Best exhibitor's flock.	Ribbon.
R. D. Williamson & Son	Xenia, O.	2d best exhibitor's flock.	Ribbon.
W. M. Staley	Marysville, O.	3d best exhibitor's flock.	Ribbon.
W. N. Cook	New London, O.	4th best exhibitor's flock.	Ribbon.
Ira A. Cleaver	W. Brownsville, Pa.	5th best exhibitor's flock.	Ribbon.
W. N. Cook & Son	New London, O.	Best breeder's young flock.	12 00
Ira A. Cleaver	W. Brownsville, Pa.	2d best breeder's young flock.	10 00
A. H. Dean & Son	W. Mansfield, O.	3d best breeder's young flock.	8 00
Ira A. Cleaver	W. Brownsville, Pa.	Best pen.	12 00
W. M. Staley	Marysville, O.	2d best pen.	10 00
R. D. Williamson	Xenia, O.	3d best pen.	8 00
W. N. Cook & Son	New London, O.	4th best pen.	6 00
J. Krantz & Son	Canal Dover, O.	5th best pen.	3 00
S. Blamer & Son	Johnstown, O.	Champion ram any age.	Ribbon.
W. N. Cook & Son	New London, O.	2d champion ram any age.	Reserve
R. D. Williamson & Son	Xenia, O.	Champion ewe any age.	Ribbon.
W. M. Staley	Marysville, O.	2d champion ewe any age.	Reserve
			Ribbon.

GRAND CHAMPION RAMS.

W. N. Cook	New London, O.	Ram with two of his get.	Ribbon.
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MERINOS—CLASS C.

JUDGE, R. A. HAYNE.

Premiums offered	\$354 00
Premiums paid	342 00
Entries	149
Animals shown in ring	90

Name.	Postoffice.	Awards.	Amount.
J. M. Wilson	Frederickstown, O.	Best ram 2 years old or over.	\$12 00
Samuel Owen & Son	Seville, O.	2d best ram 2 years old or over.	10 00
W. N. Cook & Son	New London, O.	3d best ram 2 years old or over.	8 00
J. M. Wilson	Frederickstown, O.	4th best ram 2 years old or over.	6 00
J. Krantz & Son	Canal Dover, O.	5th best ram 2 years old or over.	4 00
W. N. Cook & Son	New London, O.	6th best ram 2 years old or over.	3 00
S. Blamer & Son	Johnstown, O.	7th best ram 2 years old or over.	2 00
J. F. Walker	Gambier, O.	8th best ram 2 years old or over.	1 00
J. I. Liles	Collins, O.	Best ram 1 year old and under 2.	12 00
W. N. Cook & Son	New London, O.	2d best ram 1 year old and under 2.	10 00
S. Blamer & Son	Johnstown, O.	3d best ram 1 year old and under 2.	8 00
Samuel Owen & Son	Seville, O.	4th best ram 1 year old and under 2.	6 00
W. N. Cook & Son	New London, O.	5th best ram 1 year old and under 2.	4 00
S. Blamer & Son	Seville, O.	6th best ram 1 year old and under 2.	3 00

MERINOS—CLASS C—Concluded.

Name.	Postoffice.	Awards.	Amount.
J. F. Walker.....	Gambier, O.....	7th best ram 1 year old and under 2.....	\$2 00
Freed & Stuart.....	Lancaster, O.....	8th best ram 1 year old and under 2.....	1 00
S. Blamer & Son.....	Seville, O.....	Best ram lamb.....	12 00
J. M. Wilson.....	Frederickstown, O.....	2d best ram lamb.....	10 00
W. N. Cook & Son.....	New London, O.....	3d best ram lamb.....	8 00
S. Blamer & Son.....	Seville, O.....	4th best ram lamb.....	6 00
W. N. Cook & Son.....	New London, O.....	5th best ram lamb.....	4 00
Samuel Owen & Son.....	Seville, O.....	6th best ram lamb.....	3 00
W. Harris & Son.....	Edison, O.....	7th best ram lamb.....	2 00
Freed & Stuart.....	Lancaster, O.....	8th best ram lamb.....	1 00
J. Krantz & Son.....	Canal Dover, O.....	Best ewe 2 years old or over.....	12 00
J. F. Walker.....	Gambier, O.....	2d best ewe 2 years old or over.....	10 00
W. N. Cook & Son.....	New London, O.....	3d best ewe 2 years old or over.....	8 00
S. Blamer & Son.....	Johnstown, O.....	4th best ewe 2 years old or over.....	6 00
J. I. Liles.....	Collins, O.....	5th best ewe 2 years old or over.....	4 00
W. N. Cook & Son.....	New London, O.....	6th best ewe 2 years old or over.....	3 00
W. Harris & Son.....	Edison, O.....	7th best ewe 2 years old or over.....	2 00
R. D. Williamson & Son.....	Xenia, O.....	8th best ewe 2 years old or over.....	1 00
J. I. Liles.....	Collins, O.....	Best ewe 1 year old and under 2.....	12 00
J. M. Wilson.....	Frederickstown, O.....	2d best ewe 1 year old and under 2.....	10 00
W. N. Cook & Son.....	New London, O.....	3d best ewe 1 year old and under 2.....	8 00
S. Blamer & Son.....	Johnstown, O.....	4th best ewe 1 year old and under 2.....	6 00
Samuel Owen & Son.....	Seville, O.....	5th best ewe 1 year old and under 2.....	4 00
Freed & Stuart.....	Lancaster, O.....	6th best ewe 1 year old and under 2.....	3 00
J. F. Walker.....	Gambier, O.....	7th best ewe 1 year old and under 2.....	2 00
W. N. Cook & Son.....	New London, O.....	8th best ewe 1 year old and under 2.....	1 00
S. Blamer & Son.....	Johnstown, O.....	Best ewe lamb.....	12 00
J. M. Wilson.....	Frederickstown, O.....	2d best ewe lamb.....	10 00
Freed & Stuart.....	Lancaster, O.....	3d best ewe lamb.....	8 00
J. I. Liles.....	Collins, O.....	4th best ewe lamb.....	6 00
W. N. Cook & Son.....	New London, O.....	5th best ewe lamb.....	4 00
J. M. Wilson.....	Frederickstown, O.....	6th best ewe lamb.....	3 00
J. J. Deeds & Son.....	Pataaskala, O.....	7th best ewe lamb.....	2 00
W. N. Cook & Son.....	New London, O.....	8th best ewe lamb.....	1 00
J. I. Liles.....	Collins, O.....	Best exhibitor's flock.....	Ribbon.
J. M. Wilson.....	Frederickstown, O.....	2d best exhibitor's flock.....	Ribbon.
W. N. Cook & Son.....	New London, O.....	3d best exhibitor's flock.....	Ribbon.
S. Blamer & Son.....	Johnstown, O.....	4th best exhibitor's flock.....	Ribbon.
Samuel Owen & Son.....	Seville, O.....	5th best exhibitor's flock.....	Ribbon.
W. N. Cook & Son.....	New London, O.....	Best breeder's young flock.....	12 00
J. M. Wilson.....	Frederickstown, O.....	2d best breeder's young flock.....	10 00
S. Blamer & Son.....	Johnstown, O.....	3d best breeder's young flock.....	8 00
J. F. Walker.....	Gambier, O.....	4th best breeder's young flock.....	6 00
W. N. Cook & Son.....	New London, O.....	Best pen.....	12 00
J. M. Wilson.....	Frederickstown, O.....	2d best pen.....	10 00
J. F. Walker.....	Gambier, O.....	3d best pen.....	8 00
J. M. Wilson.....	Frederickstown, O.....	Champion ram any age.....	Ribbon.
J. I. Liles.....	Collins, O.....	2d champion ram any age.....	Ribbon.
J. I. Liles.....	Frederickstown, O.....	Champion ewe any age.....	Ribbon.
J. Krantz.....	Canal Dover, O.....	2d champion ewe any age.....	Ribbon.

GRAND CHAMPION RAMS.

J. I. Liles.....	Frederickstown, O.....	Ram with two of his get.....	Ribbon.
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FRENCH MERINOS—RAMBOUILLET.

JUDGE, J. H. McMULLAN.

Premiums offered.....	\$354 00
Premiums paid.....	354 00

Entries.....	81
Animals shown in ring.....	72

Name.	Postoffice.	Awards.	Amount.
Orth & Mathews.....	McGuffey, O.....	Ram 2 years old or over.....	\$12 00
L. W. Shaw.....	Pottersburg, O.....	2d best ram 2 years old or over.....	10 00
C. H. Scott.....	Arlington, O.....	3d best ram 2 years old or over.....	8 00
L. W. Shaw.....	Pottersburg, O.....	4th best ram 2 years old or over.....	6 00
J. B. Herd.....	E. Liberty, O.....	5th best ram 2 years old or over.....	4 00
J. B. Herd.....	E. Liberty, O.....	6th best ram 2 years old or over.....	3 00
Orth & Mathews.....	McGuffey, O.....	7th best ram 2 years old or over.....	2 00
Jno. E. Webb.....	Southport, Ind.....	8th best ram 2 years old or over.....	1 00

FRENCH MERINOS—RAMBOUILLET—Concluded.

Name.	Postoffice.	Awards.	Amount.
L. W. Shaw.....	Pottersburg, O.....	Best ram 1 year old and under 2.....	\$12 00
Orth & Mathews.....	McGuffey, O.....	2d best ram 1 year old and under 2.....	10 00
J. B. Herd.....	E. Liberty, O.....	3d best ram 1 year old and under 2.....	8 00
Orth & Mathews.....	McGuffey, O.....	4th best ram 1 year old and under 2.....	6 00
J. B. Herd.....	E. Liberty, O.....	5th best ram 1 year old and under 2.....	4 00
L. W. Shaw.....	Pottersburg, O.....	6th best ram 1 year old and under 2.....	3 00
J. M. Shaw & Son.....	Edison, O.....	7th best ram 1 year old and under 2.....	2 00
J. E. Webb.....	Southport, Ind.....	8th best ram 1 year old and under 2.....	1 00
J. M. Shaw & Son.....	Edison, O.....	Best ram 1 year old.....	12 00
J. E. Webb.....	Southport, Ind.....	2d best ram 1 year old.....	10 00
J. B. Herd.....	E. Liberty, O.....	3d best ram 1 year old.....	8 00
J. E. Webb.....	Southport, Ind.....	4th best ram 1 year old.....	6 00
Orth & Mathews.....	McGuffey, O.....	5th best ram 1 year old.....	4 00
J. B. Herd.....	E. Liberty, O.....	6th best ram 1 year old.....	3 00
L. W. Shaw.....	Pottersburg, O.....	7th best ram 1 year old.....	2 00
L. W. Shaw.....	Pottersburg, O.....	8th best ram 1 year old.....	1 00
J. M. Shaw & Son.....	Edison, O.....	Best ewe 2 years old or over.....	12 00
Orth & Mathews.....	McGuffey, O.....	2d best ewe 2 years old or over.....	10 00
L. W. Shaw.....	Pottersburg, O.....	3d best ewe 2 years old or over.....	8 00
L. W. Shaw.....	Pottersburg, O.....	4th best ewe 2 years old or over.....	6 00
J. B. Herd.....	E. Liberty, O.....	5th best ewe 2 years old or over.....	4 00
Orth & Mathews.....	McGuffey, O.....	6th best ewe 2 years old or over.....	3 00
J. M. Shaw & Sons.....	Edison, O.....	7th best ewe 2 years old or over.....	2 00
J. E. Webb.....	Southport, Ind.....	8th best ewe 2 years old or over.....	1 00
L. W. Shaw.....	Pottersburg.....	Best ewe 1 year old and under 2.....	12 00
J. W. Shaw & Son.....	Edison, O.....	2d best ewe 1 year old and under 2.....	10 00
J. B. Herd.....	E. Liberty, O.....	3d best ewe 1 year old and under 2.....	8 00
Orth & Mathews.....	McGuffey, O.....	4th best ewe 1 year old and under 2.....	6 00
Orth & Mathews.....	McGuffey, O.....	5th best ewe 1 year old and under 2.....	4 00
J. M. Shaw & Son.....	Edison, O.....	6th best ewe 1 year old and under 2.....	3 00
J. B. Herd.....	E. Liberty, O.....	7th best ewe 1 year old and under 2.....	2 00
L. W. Shaw.....	Pottersburg, O.....	8th best ewe 1 year old and under 2.....	1 00
C. H. Solt.....	Arlington, O.....	Best ewe under 1 year old.....	12 00
J. E. Webb.....	Southport, Ind.....	2d best ewe under 1 year old.....	10 00
L. W. Shaw.....	Pottersburg, O.....	3d best ewe under 1 year old.....	8 00
J. E. Webb.....	Southport, Ind.....	4th best ewe under 1 year old.....	6 00
J. M. Shaw & Son.....	Edison, O.....	5th best ewe under 1 year old.....	4 00
Orth & Mathews.....	McGuffey, O.....	6th best ewe under 1 year old.....	3 00
J. B. Herd.....	E. Liberty, O.....	7th best ewe under 1 year old.....	2 00
J. M. Shaw & Son.....	Edison, O.....	8th best ewe under 1 year old.....	1 00
L. W. Shaw.....	Pottersburg, O.....	Best breeder's young flock.....	12 00
Orth & Mathews.....	McGuffey, O.....	2d best breeder's young flock.....	10 00
J. B. Herd.....	E. Liberty, O.....	3d best breeder's young flock.....	8 00
J. M. Shaw & Son.....	Edison, O.....	4th best breeder's young flock.....	6 00
J. E. Webb.....	Southport, Ind.....	5th best breeder's young flock.....	3 00
J. E. Webb.....	Southport, Ind.....	Best pen.....	12 00
J. M. Shaw & Son.....	Edison, O.....	2d best pen.....	10 00
J. B. Herd.....	E. Liberty, O.....	3d best pen.....	8 00
L. W. Shaw.....	Pottersburg, O.....	4th best pen.....	6 00
Orth & Mathews.....	McGuffey, O.....	5th best pen.....	3 00

CHAMPIONS.

Orth & Mathews.....	McGuffey, O.....	Champion ram any age.....	Ribbon.
J. M. Shaw & Son.....	Edison, O.....	Champion ewe any age.....	Ribbon.

GRAND CHAMPIONS.

Orth & Mathews.....	McGuffey, O.....	Best ram with 2 of his get.....	Ribbon.
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COTSWALD.

JUDGE, D. B. WATT.

Premiums offered.....		\$256 00
Premiums paid.....		202 00
Entries.....	58	
Animals shown in ring.....	35	

Name.	Postoffice.	Awards.	Amount.
Anoka Farms.....	Waukesha, Wis.....	Best ram 2 years old or over.....	\$10 00
Peter W. Hints.....	Clyde, O.....	2d best ram 2 years old or over.....	8 00
Anoka Farms.....	Waukesha, Wis.....	3d best ram 2 years old or over.....	6 00
Peter W. Hints.....	Clyde, O.....	4th best ram 2 years old or over.....	4 00

COTSWALD—Concluded.

Name.	Postoffice.	Awards.	Amount.
Anoka Farms.....	Waukesha, Wis.....	Best ram 1 year old and under 2.....	\$10 00
Peter W. Hintz.....	Clyde, O.....	2d best ram 1 year old and under 2.....	8 00
Peter W. Hintz.....	Clyde, O.....	3d best ram 1 year old and under 2.....	6 00
Anoka Farms.....	Waukesha, Wis.....	4th best ram 1 year old and under 2.....	4 00
Anoka Farms.....	Waukesha, Wis.....	Best ram under 1 year.....	8 00
Anoka Farms.....	Waukesha, Wis.....	2d best ram under 1 year old.....	6 00
Peter W. Hintz.....	Clyde, O.....	3d best ram under 1 year old.....	4 00
Peter W. Hintz.....	Clyde, O.....	4th best ram under 1 year old.....	3 00
Peter W. Hintz.....	Clyde, O.....	Best ewe 2 years old or over.....	10 00
Peter W. Hintz.....	Clyde, O.....	2d best ewe 2 years old or over.....	8 00
Anoka Farms.....	Waukesha, Wis.....	3d best ewe 2 years old or over.....	6 00
Anoka Farms.....	Waukesha, Wis.....	4th best ewe 2 years old or over.....	4 00
Anoka Farms.....	Waukesha, Wis.....	Best ewe 1 year old and under 2.....	10 00
Peter W. Hintz.....	Clyde, O.....	2d best ewe 1 year old and under 2.....	8 00
Peter W. Hintz.....	Clyde, O.....	3d best ewe 1 year old and under 2.....	6 00
Anoka Farms.....	Waukesha, Wis.....	4th best ewe 1 year old and under 2.....	4 00
Anoka Farms.....	Waukesha, Wis.....	Best ewe under 1 year old.....	8 00
Anoka Farms.....	Waukesha, Wis.....	2d best ewe under 1 year old.....	6 00
Peter W. Hintz.....	Clyde, O.....	3d best ewe under 1 year old.....	4 00
Peter W. Hintz.....	Clyde, O.....	4th best ewe under 1 year old.....	3 00
Anoka Farms.....	Waukesha, Wis.....	Best exhibitor's flock.....	10 00
Peter W. Hintz.....	Clyde, O.....	2d best exhibitor's flock.....	8 00
Anoka Farms.....	Waukesha, Wis.....	3d best exhibitor's flock.....	6 00
Peter W. Hintz.....	Clyde, O.....	4th best exhibitor's flock.....	4 00
Peter W. Hintz.....	Clyde, O.....	Best breeder's young flock.....	10 00
Peter W. Hintz.....	Clyde, O.....	Best pen.....	10 00

OXFORD DOWNS.

JUDGE, A. G. DANKS.

Premiums offered.....		\$256 00
Premiums paid.....		218 00
Entries.....	60	
Animals shown in ring.....	38	

Name.	Postoffice.	Awards.	Amount.
Geo. W. Heskett.....	Fulton, O.....	Best ram 2 years old or over.....	\$10 00
J. C. Williamson.....	Xenia, O.....	2d best ram 2 years old or over.....	8 00
G. W. Heskett.....	Fulton, O.....	3d best ram 2 years old or over.....	6 00
J. C. Williamson.....	Xenia, O.....	4th best ram 2 years old or over.....	4 00
G. W. Heskett.....	Fulton, O.....	Best ram 1 year old and under 2.....	10 00
J. C. Williamson.....	Xenia, O.....	2d best ram 1 year old and under 2.....	8 00
G. W. Heskett.....	Fulton, O.....	3d best ram 1 year old and under 2.....	6 00
J. C. Williamson.....	Xenia, O.....	4th best ram 1 year old and under 2.....	4 00
G. W. Heskett.....	Fulton, O.....	Best ram under 1 year old.....	8 00
G. W. Heskett.....	Fulton, O.....	2d best ram under 1 year old.....	6 00
J. C. Williamson.....	Xenia, O.....	3d best ram under 1 year old.....	4 00
J. C. Williamson.....	Xenia, O.....	4th best ram under 1 year old.....	3 00
J. C. Williamson.....	Xenia, O.....	Best ewe 2 years old or over.....	10 00
G. W. Heskett.....	Fulton, O.....	2d best ewe 2 years old or over.....	8 00
J. C. Williamson.....	Xenia, O.....	3d best ewe 2 years old or over.....	6 00
G. W. Heskett.....	Fulton, O.....	4th best ewe 2 years old or over.....	4 00
G. W. Heskett.....	Fulton, O.....	Best ewe 1 year old and under 2.....	10 00
J. C. Williamson.....	Xenia, O.....	2d best ewe 1 year old and under 2.....	8 00
G. W. Heskett.....	Fulton, O.....	3d best ewe 1 year old and under 2.....	6 00
J. C. Williamson.....	Xenia, O.....	4th best ewe 1 year old and under 2.....	4 00
G. W. Heskett.....	Fulton, O.....	Best ewe under 1 year old.....	8 00
J. C. Williamson.....	Xenia, O.....	2d best ewe under 1 year old.....	6 00
J. C. Williamson.....	Xenia, O.....	3d best ewe under 1 year old.....	4 00
G. W. Heskett.....	Fulton, O.....	4th best ewe under 1 year old.....	3 00
G. W. Heskett.....	Fulton, O.....	Best exhibitor's flock.....	10 00
J. C. Williamson.....	Xenia, O.....	2d best exhibitor's flock.....	8 00
J. C. Williamson.....	Xenia, O.....	3d best exhibitor's flock.....	6 00
G. W. Heskett.....	Fulton, O.....	4th best exhibitor's flock.....	4 00
J. C. Williamson.....	Xenia, O.....	Best breeder's young flock.....	10 00
G. W. Heskett.....	Fulton, O.....	2d best breeder's young flock.....	8 00
J. C. Williamson.....	Xenia, O.....	Best pen.....	10 00
G. W. Heskett.....	Fulton, O.....	2d best pen.....	8 00

CHAMPIONS.

G. W. Heskett.....	Fulton, O.....	Champion ram any age.....	Ribbon.
G. W. Heskett.....	Fulton, O.....	2d champion ram any age.....	Reserve Ribbon.
J. C. Williamson.....	Xenia, O.....	Champion ewe any age.....	Ribbon.
G. W. Heskett.....	Fulton, O.....	2d champion ewe any age.....	Reserve Ribbon.

SHROPSHIRE.

JUDGE, A. G. DANKS.

Premiums offered.....	\$256 00
Premiums paid.....	252 00
Entries.....	128
Animals shown in ring.....	61

Name.	Postoffice.	Awards.	Amount.
Jesse C. Andrews.....	West Point, Ind.	Best ram 2 years old or over.....	\$10 00
Anoka Farms.....	Waukesha, Wis.	2d best ram 2 years old or over.....	8 00
Ers Chambers & Son.....	Mansfield, O.	2d best ram 2 years old or over.....	6 00
C. O. Pattridge.....	Perry, N. Y.	4th best ram 2 years old or over.....	4 00
R. E. Taylor.....	Bellefontaine, O.	5th best ram 2 years old or over.....	2 00
Jesse C. Andrews.....	West Point, Ind.	Best ram 1 year old and under 2.....	10 00
Anoka Farms.....	Waukesha, Wis.	2d best ram 1 year old and under 2.....	8 00
Anoka Farms.....	Waukesha, Wis.	3d best ram 1 year old and under 2.....	6 00
R. Cloyd.....	Stockwell, Ind.	4th best ram 1 year old and under 2.....	4 00
C. O. Pattridge.....	Perry, N. Y.	5th best ram 1 year old and under 2.....	2 00
Anoka Farms.....	Waukesha, Wis.	Best ram under 1 year old.....	8 00
Jesse C. Andrews.....	West Point, Ind.	2d best ram under 1 year old.....	6 00
R. Cloyd.....	Stockwell, Ind.	3d best ram under 1 year old.....	4 00
R. Cloyd.....	Stockwell, Ind.	4th best ram under 1 year old.....	3 00
F. E. Woodward.....	Forest, O.	5th best ram under 1 year old.....	2 00
Jesse C. Andrews.....	West Point, Ind.	Best ewe 2 years old or over.....	10 00
Anoka Farms.....	Waukesha, Wis.	2d best ewe 2 years old or over.....	8 00
C. O. Pattridge.....	Perry, N. Y.	3d best ewe 2 years old or over.....	6 00
Ers Chambers & Son.....	Mansfield, O.	4th best ewe 2 years old or over.....	4 00
F. E. Woodward.....	Forest, O.	5th best ewe 2 years old or over.....	2 00
Jesse C. Andrews.....	West Point, Ind.	Best ewe 1 year and under 2.....	10 00
Anoka Farms.....	Waukesha, Wis.	2d best ewe 1 year and under 2.....	8 00
R. Cloyd.....	Stockwell, Ind.	3d best ewe 1 year and under 2.....	6 00
Jesse C. Andrews.....	West Point, Ind.	4th best ewe 1 year and under 2.....	4 00
L. B. Palmer.....	Pataskala, O.	5th best ewe 1 year and under 2.....	2 00
Jesse C. Andrews.....	West Point, Ind.	Best ewe under 1 year old.....	8 00
Anoka Farms.....	Waukesha, Wis.	2d best ewe under 1 year old.....	6 00
R. Cloyd.....	Stockwell, Ind.	3d best ewe under 1 year old.....	4 00
C. O. Pattridge.....	Perry, N. Y.	4th best ewe under 1 year old.....	3 00
Jesse C. Andrews.....	West Point, Ind.	5th best ewe under 1 year old.....	2 00
Jesse C. Andrews.....	West Point, Ind.	Best exhibitor's flock.....	10 00
Anoka Farms.....	Waukesha, Wis.	2d best exhibitor's flock.....	8 00
Jesse C. Andrews.....	West Point, Ind.	3d best exhibitor's flock.....	6 00
R. Cloyd.....	Stockwell, Ind.	4th best exhibitor's flock.....	4 00
C. O. Pattridge.....	Perry, N. Y.	5th best exhibitor's flock.....	2 00
Jesse C. Andrews.....	West Point, Ind.	Best breeder's young flock.....	10 00
R. Cloyd.....	Stockwell, Ind.	2d best breeder's young flock.....	8 00
C. O. Pattridge.....	Perry, N. Y.	3d best breeder's young flock.....	6 00
L. B. Palmer.....	Pataskala, O.	4th best breeder's young flock.....	4 00
Jesse C. Andrews.....	West Point, Ind.	Best pen.....	10 00
R. Cloyd.....	Stockwell, Ind.	2d best pen.....	8 00
R. E. Taylor.....	Bellefontaine, O.	3d best pen.....	6 00
L. B. Palmer.....	Pataskala, O.	4th best pen.....	4 00

CHAMPIONS.

Jesse C. Andrews.....	West Point, Ind.	Champion ram any age.....	Ribbon.
Jesse C. Andrews.....	West Point, Ind.	2d champion ram any age.....	Reserve
Jesse C. Andrews.....	West Point, Ind.	Champion ewe any age.....	Ribbon.
Jesse C. Andrews.....	West Point, Ind.	2d champion ewe any age.....	Reserve
Jesse C. Andrews.....	West Point, Ind.	2d champion ewe any age.....	Ribbon.

OHIO BRED SHROPSHIRE.

JUDGE, A. G. DANKS.

Premiums offered.....	\$206 00
Premiums paid.....	204 00
Entries.....	136
Animals shown in ring.....	98

Name.	Postoffice.	Awards.	Amount.
Ers Chambers & Son.....	Mansfield, O.	Best ram 2 years old or over.....	\$5 00
R. & W. Postle.....	Camp Chase, O.	2d best ram 2 years old or over.....	5 00
R. & W. Postle.....	Camp Chase, O.	3d best ram 2 years or over.....	4 00

OHIO BRED SHROPSHIRE—Concluded.

Name.	Postoffice.	Awards.	Amount.
Pearl Wurtz.....	Attica, O.	4th best ram 2 years old or over.....	\$4 00
Walter D. Postle.....	Camp Chase, O.	5th best ram 2 years old or over.....	3 00
F. E. Woodward.....	Forest, O.	6th best ram 2 years old or over.....	2 00
H. W. Chaffee.....	Brecksville, O.	Best ram 1 year old and under 2.....	5 00
L. H. Ross.....	Bucyrus, O.	2d best ram 1 year old and under 2.....	5 00
R. & W. Postle.....	Camp Chase, O.	3d best ram 1 year old and under 2.....	4 00
R. & W. Postle.....	Camp Chase, O.	4th best ram 1 year old and under 2.....	4 00
Walter D. Postle.....	Camp Chase, O.	5th best ram 1 year old and under 2.....	3 00
R. E. Taylor.....	Bellefontaine, O.	6th best ram 1 year old and under 2.....	2 00
Ers Chambers & Son.....	New Mansfield, O.	Best ewe 2 years old or over.....	5 00
R. & W. Postle.....	Camp Chase, O.	2d best ewe 2 years old or over.....	5 00
Walter D. Postle.....	Camp Chase, O.	3d best ewe 2 years old or over.....	4 00
R. E. Taylor.....	Bellefontaine, O.	4th best ewe 2 years old or over.....	4 00
Ers Chambers & Son.....	Mansfield, O.	5th best ewe 2 years old or over.....	3 00
R. E. Taylor.....	Bellefontaine, O.	6th best ewe 2 years old or over.....	2 00
H. H. Chaffee.....	Brecksville, O.	Best ram 1 year old.....	4 00
L. H. Ross.....	Bucyrus, O.	2d best ram 1 year old.....	4 00
R. E. Taylor.....	Bellefontaine, O.	3d best ram 1 year old.....	3 00
L. H. Ross.....	Bucyrus, O.	4th best ram 1 year old.....	3 00
Walter D. Postle.....	Camp Chase, O.	5th best ram 1 year old.....	2 00
R. & W. Postle.....	Camp Chase, O.	6th best ram 1 year old.....	2 00
Ers Chambers & Son.....	Mansfield, O.	Best ewe 1 year old and under 2.....	5 00
R. & W. Postle.....	Camp Chase, O.	2d best ewe 1 year old and under 2.....	5 00
Pearl Wurtz.....	Attica, O.	3d best ewe 1 year old and under 2.....	4 00
F. E. Woodward.....	Forest, O.	4th best ewe 1 year old and under 2.....	4 00
R. E. Taylor.....	Bellefontaine, O.	5th best ewe 1 year old and under 2.....	3 00
Walter D. Postle.....	Camp Chase, O.	6th best ewe 1 year old and under 2.....	2 00
L. H. Ross.....	Bucyrus, O.	Best ewe under 1 year old.....	4 00
Pearl Wurtz.....	Attica, O.	2d best ewe under 1 year old.....	4 00
H. W. Chaffee.....	Brecksville, O.	3d best ewe under 1 year old.....	3 00
R. E. Taylor.....	Bellefontaine, O.	4th best ewe under 1 year old.....	3 00
Pearl Wurtz.....	Attica, O.	5th best ewe under 1 year old.....	2 00
L. B. Palmer.....	Pataskala, O.	6th best ewe under 1 year old.....	2 00
Ers Chambers & Son.....	Mansfield, O.	Best exhibitor's flock.....	5 00
H. W. Chaffee.....	Brecksville, O.	2d best exhibitor's flock.....	5 00
R. & W. Postle.....	Camp Chase, O.	3d best exhibitor's flock.....	4 00
Pearl Wurtz.....	Attica, O.	4th best exhibitor's flock.....	4 00
L. H. Ross.....	Bucyrus, O.	5th best exhibitor's flock.....	3 00
R. E. Taylor.....	Bellefontaine, O.	6th best exhibitor's flock.....	2 00
H. W. Chaffee.....	Brecksville, O.	Best breeder's young flock.....	10 00
Pearl Wurtz.....	Attica, O.	2d best breeder's young flock.....	8 00
R. W. Postle.....	Camp Chase, O.	3d best breeder's young flock.....	6 00
R. E. Taylor.....	Bellefontaine, O.	4th best breeder's young flock.....	4 00
Walter D. Postle.....	Camp Chase, O.	5th best breeder's young flock.....	3 00
H. W. Chaffee.....	Brecksville, O.	Best pen.....	5 00
R. E. Taylor.....	Bellefontaine, O.	2d best pen.....	5 00
Pearl Wurtz.....	Attica, O.	3d best pen.....	4 00
L. H. Ross.....	Bucyrus, O.	4th best pen.....	4 00
L. B. Palmer.....	Pataskala, O.	5th best pen.....	2 00
Walter Postle.....	Camp Chase, O.	6th best pen.....	2 00
H. W. Chaffee.....	Brecksville, O.	Champion ram any age.....	Ribbon.
Ers Chambers & Son.....	Mansfield, O.	2d champion ram any age.....	Reserve Ribbon.
Ers Chambers & Son.....	Mansfield, O.	Champion ewe any age.....	Ribbon.
Ers Chambers & Son.....	Mansfield, O.	2d champion ewe any age.....	Reserve Ribbon.

HAMPSHIRE DOWNS.

JUDGE, A. G. DANKS.

Premiums offered.....	\$256 00
Premiums paid.....	254 00
Entries.....	73
Animals shown in ring.....	59

Name.	Postoffice.	Awards.	Amount.
Walnut Hall Farms.....	Donerail, Ky.	Best ram 2 years old or over.....	\$10 00
Walnut Hall Farms.....	Donerail, Ky.	2d best ram 2 years old or over.....	8 00
C. L. Mitchell.....	Lucas, O.	3d best ram 2 years old or over.....	6 00
C. L. Mitchell.....	Lucas, O.	4th best ram 2 years old or over.....	4 00
C. O. Pattridge.....	Perry, N. Y.	5th best ram 2 years old or over.....	2 00
Walnut Hall Farms.....	Donerail, Ky.	Best ram 1 year and under 2.....	10 00
Walnut Hall Farms.....	Donerail, Ky.	2d best ram 1 year and under 2.....	8 00
C. L. Mitchell.....	Lucas, O.	3d best ram 1 year and under 2.....	6 00

HAMPSHIRE DOWNS—Concluded.

Name.	Postoffice.	Awards.	Amount.
C. O. Partridge.....	Perry, N. Y.	4th best ram 1 year and under 2.....	\$4 00
Interlaken School Farms.....	Rolling Prairie, Ind.	5th best ram 1 year and under 2.....	2 00
Walnut Hall Farms.....	Donerail, Ky.	Best ram under 1 year old.....	8 00
Walnut Hall Farms.....	Donerail, Ky.	2d best ram under 1 year old.....	6 00
C. L. Mitchell.....	Lucas, O.	3d best ram under 1 year old.....	4 00
C. L. Mitchell.....	Lucas, O.	4th best ram under 1 year old.....	3 00
C. O. Partridge.....	Perry, N. Y.	5th best ram under 1 year old.....	2 00
Walnut Hall Farms.....	Donerail, Ky.	Best ewe 2 years old or over.....	10 00
Walnut Hall Farms.....	Donerail, Ky.	2d best ewe 2 years old or over.....	8 00
C. L. Mitchell.....	Lucas, O.	3d best ewe 2 years old or over.....	6 00
C. L. Mitchell.....	Lucas, O.	4th best ewe 2 years old or over.....	4 00
C. O. Partridge.....	Perry, N. Y.	5th best ewe 2 years old or over.....	2 00
Walnut Hall Farms.....	Donerail, Ky.	Best ewe 1 year old and under 2.....	10 00
Walnut Hall Farms.....	Donerail, Ky.	2d best ewe 1 year old and under 2.....	8 00
C. O. Partridge.....	Lucas, O.	3d best ewe 1 year old and under 2.....	4 00
C. L. Mitchell.....	Perry, N. Y.	4th best ewe 1 year old and under 2.....	2 00
Walnut Hall Farms.....	Donerail, Ky.	Best ewe under 1 year old.....	8 00
Walnut Hall Farms.....	Donerail, Ky.	2d best ewe under 1 year old.....	6 00
C. L. Mitchell.....	Lucas, O.	3d best ewe under 1 year old.....	3 00
Interlaken School Farm.....	Rolling Prairie, Ind.	4th best ewe under 1 year old.....	2 00
C. L. Mitchell.....	Lucas, O.	5th best ewe under 1 year old.....	10 00
Walnut Hall Farms.....	Donerail, Ky.	Best exhibitor's flock.....	8 00
Walnut Hall Farms.....	Donerail, Ky.	2d best exhibitor's flock.....	6 00
C. L. Mitchell.....	Lucas, O.	3d best exhibitor's flock.....	4 00
C. O. Partridge.....	Perry, N. Y.	4th best exhibitor's flock.....	2 00
C. L. Mitchell.....	Lucas, O.	5th best exhibitor's flock.....	10 00
Walnut Hall Farms.....	Donerail, Ky.	Best breeder's flock.....	8 00
C. L. Mitchell.....	Lucas, O.	2d best breeder's flock.....	6 00
C. O. Partridge.....	Perry, N. Y.	3d best breeder's flock.....	4 00
Interlaken School Farm.....	Rolling Prairie, Ind.	4th best breeder's flock.....	10 00
Walnut Hall Farms.....	Donerail, Ky.	Best pen.....	8 00
Walnut Hall Farms.....	Donerail, Ky.	2d best pen.....	6 00
C. O. Partridge.....	Perry, N. Y.	3d best pen.....	4 00
C. L. Mitchell.....	Lucas, O.	4th best pen.....	2 00
Interlaken School Farms.....	Rolling Prairie, Ind.	5th best pen.....	Ribbon.
Walnut Hall Farms.....	Donerail, Ky.	Champion ram any age.....	Reserve
Walnut Hall Farms.....	Donerail, Ky.	2d champion ram any age.....	Ribbon.
Walnut Hall Farms.....	Donerail, Ky.	Champion ewe any age.....	Ribbon.
Walnut Hall Farms.....	Donerail, Ky.	2d champion ewe any age.....	Reserve
Walnut Hall Farms.....	Donerail, Ky.		Ribbon.

SOUTH DOWNS.

JUDGE, A. G. DANKS.

Premiums offered.....		\$256 00
Premiums paid.....		248 00
Entries.....	90	
Animals shown in ring.....	70	

Name.	Postoffice.	Awards.	Amount.
C. L. Mitchell.....	Lucas, O.	Best ram 2 years old or over.....	\$10 00
C. O. Partridge.....	Perry, N. Y.	2d best ram 2 years old or over.....	8 00
C. L. Mitchell.....	Lucas, O.	3d best ram 2 years old or over.....	6 00
R. C. Watt & Son.....	Cedarville, O.	4th best ram 2 years old or over.....	4 00
R. W. Palmer.....	Pataskala, O.	5th best ram 2 years old or over.....	2 00
C. L. Mitchell.....	Lucas, O.	Best ram 1 year and under 2.....	10 00
C. O. Partridge.....	Perry, N. Y.	2d best ram 1 year and under 2.....	8 00
R. C. Watt & Son.....	Cedarville, O.	3d best ram 1 year and under 2.....	6 00
C. L. Mitchell.....	Lucas, O.	4th best ram 1 year and under 2.....	4 00
R. C. Watt & Son.....	Cedarville, O.	5th best ram 1 year and under 2.....	2 00
C. O. Partridge.....	Perry, N. Y.	Best ram under 1 year old.....	8 00
C. L. Mitchell.....	Lucas, O.	2d best ram under 1 year old.....	6 00
C. L. Mitchell.....	Lucas, O.	3d best ram under 1 year old.....	4 00
R. C. Watt & Son.....	Cedarville, O.	4th best ram under 1 year old.....	3 00
R. C. Watt & Son.....	Cedarville, O.	5th best ram under 1 year old.....	2 00
C. L. Mitchell.....	Lucas, O.	Best ewe 2 years old or over.....	10 00
R. W. Palmer.....	Pataskala, O.	2d best ewe 2 years old or over.....	8 00
R. C. Watt & Son.....	Cedarville, O.	3d best ewe 2 years old or over.....	6 00
R. C. Watt & Son.....	Cedarville, O.	4th best ewe 2 years old or over.....	4 00
R. W. Palmer.....	Pataskala, O.	5th best ewe 2 years old or over.....	2 00
C. L. Mitchell.....	Lucas, O.	Best ewe 1 year old and under 2.....	10 00
R. C. Watt & Son.....	Cedarville, O.	2d best ewe 1 year old and under 2.....	8 00

SOUTH DOWNS—Concluded.

Name.	Postoffice.	Awards.	Amount.
C. L. Mitchell	Lucas, O.	3d best ewe 1 year old and under 2.	\$6 00
R. W. Palmer	Pataskala, O.	4th best ewe 1 year old and under 2.	4 00
C. O. Pattridge	Perry, N. Y.	5th best ewe 1 year old and under 2.	2 00
C. L. Mitchell	Lucas, O.	Best ewe under 1 year old.	8 00
R. W. Palmer	Pataskala, O.	2d best ewe under 1 year old.	6 00
R. C. Watt & Son	Cedarville, O.	3d best ewe under 1 year old.	4 00
C. L. Mitchell	Lucas, O.	4th best ewe under 1 year old.	3 00
R. C. Watt & Son	Cedarville, O.	5th best ewe under 1 year old.	2 00
C. L. Mitchell	Lucas, O.	Best exhibitor's flock.	10 00
R. C. Watt & Son	Cedarville, O.	2d best exhibitor's flock.	8 00
C. L. Mitchell	Lucas, O.	3d best exhibitor's flock.	6 00
R. W. Palmer	Pataskala, O.	4th best exhibitor's flock.	4 00
C. O. Pattridge	Perry, N. Y.	5th best exhibitor's flock.	2 00
R. C. Watt & Son	Cedarville, O.	Best breeder's young flock.	10 00
C. O. Pattridge	Perry, N. Y.	2d best breeder's young flock.	8 00
R. W. Palmer	Pataskala, O.	3d best breeder's young flock.	6 00
R. C. Watt & Son	Cedarville, O.	Best pen.	10 00
C. L. Mitchell	Lucas, O.	2d best pen.	8 00
C. O. Pattridge	Perry, N. Y.	3d best pen.	6 00
F. D. Postle	Camp Chase, O.	4th best pen.	4 00

CHAMPIONS.

C. L. Mitchell	Lucas, O.	Champion ram any age.	Ribbon.
C. O. Pattridge	Perry, N. Y.	2d best champion ram any age.	Reserve Ribbon.
C. L. Mitchell	Lucas, O.	Champion ewe any age.	Ribbon.
C. L. Mitchell	Lucas, O.	2d champion ewe any age.	Reserve Ribbon.

LINCOLNS.

JUDGE, D. B. WATT.

Premiums offered		\$256 00
Premiums paid		230 00
Entries	38	
Animals shown in ring	38	

Name.	Postoffice.	Awards.	Amount.
A. C. Fielder	DeGraff, O.	Best ram 2 years old or over.	\$10 00
A. C. Fielder	DeGraff, O.	2d best ram 2 years old or over.	8 00
J. R. Bickett	Xenia, O.	3d best ram 2 years old or over.	6 00
J. R. Bickett	Xenia, O.	4th best ram 2 years old or over.	4 00
J. R. Bickett	Xenia, O.	Best ram 1 year and under 2.	10 00
A. C. Fielder	DeGraff, O.	2d best ram 1 year and under 2.	8 00
A. C. Fielder	DeGraff, O.	3d best ram 1 year and under 2.	6 00
J. R. Bickett	Xenia, O.	4th best ram 1 year and under 2.	4 00
J. R. Bickett	Xenia, O.	Best ram under 1 year old.	8 00
A. C. Fielder	DeGraff, O.	2d best ram under 1 year old.	6 00
A. C. Fielder	DeGraff, O.	3d best ram under 1 year old.	4 00
J. R. Bickett	Xenia, O.	4th best ram under 1 year old.	3 00
A. C. Fielder	DeGraff, O.	Best ewe 2 years old or over.	10 00
J. R. Bickett	Xenia, O.	2d best ewe 2 years old or over.	8 00
J. R. Bickett	Xenia, O.	3d best ewe 2 years old or over.	6 00
A. C. Fielder	DeGraff, O.	4th best ewe 2 years old or over.	4 00
A. C. Fielder	DeGraff, O.	Best ewe 1 year old and under 2.	10 00
J. R. Bickett	Xenia, O.	2d best ewe 1 year old and under 2.	8 00
A. C. Fielder	DeGraff, O.	3d best ewe 1 year old and under 2.	6 00
J. R. Bickett	Xenia, O.	4th best ewe 1 year old and under 2.	4 00
A. C. Fielder	DeGraff, O.	Best ewe under 1 year old.	8 00
A. C. Fielder	DeGraff, O.	2d best ewe under 1 year old.	6 00
J. R. Bickett	Xenia, O.	3d best ewe under 1 year old.	4 00
J. R. Bickett	Xenia, O.	4th best ewe under 1 year old.	3 00
A. C. Fielder	DeGraff, O.	Best exhibitor's flock.	10 00
J. R. Bickett	Xenia, O.	2d best exhibitor's flock.	8 00
A. C. Fielder	DeGraff, O.	3d best exhibitor's flock.	6 00
J. R. Bickett	Xenia, O.	4th best exhibitor's flock.	4 00
J. R. Bickett	Xenia, O.	Best breeder's young flock.	10 00
A. C. Fielder	DeGraff, O.	2d best breeder's young flock.	8 00
A. C. Fielder	DeGraff, O.	3d best breeder's young flock.	6 00
J. R. Bickett	Xenia, O.	Best pen.	10 00
A. C. Fielder	DeGraff, O.	2d best pen.	8 00
A. C. Fielder	DeGraff, O.	3d best pen.	6 00

LINCOLNS—Concluded.

Name.	Postoffice.	Awards.	Amount.
CHAMPIONS.			
A. C. Fielder.....	DeGraff, O.....	Champion ram any age.....	Ribbon.
J. R. Bickett.....	Xenia, O.....	2d champion ram any age.....	Reserve
A. C. Fielder.....	DeGraff, O.....	Champion ewe any age.....	Ribbon.
A. C. Fielder.....	DeGraff, O.....	2d champion ewe any age.....	Reserve
			Ribbon.

DORSETS.

JUDGE, A. G. DANKS.

Premiums offered.....	\$256 00
Premiums paid.....	252 00

Entries.....	80
Animals shown in ring.....	54

Name.	Postoffice.	Awards.	Amount.
H. H. Cherry.....	Xenia, O.....	Best ram 2 years old or over.....	\$10 00
Fillmore Farms.....	Bennington, Vt.....	2d best ram 2 years old or over.....	8 00
Fillmore Farms.....	Bennington, Vt.....	3d best ram 2 years old or over.....	6 00
H. H. Cherry.....	Xenia, O.....	4th best ram 2 years old or over.....	4 00
J. B. Henderson.....	Hickory, O.....	5th best ram 2 years old or over.....	2 00
Fillmore Farms.....	Bennington, Vt.....	Best ram 1 year and under 2.....	10 00
Fillmore Farms.....	Bennington, Vt.....	2d best ram 1 year and under 2.....	8 00
H. H. Cherry.....	Xenia, O.....	3d best ram 1 year and under 2.....	6 00
H. H. Cherry.....	Xenia, O.....	4th best ram 1 year and under 2.....	4 00
J. B. Henderson.....	Hickory, O.....	5th best ram 1 year and under 2.....	2 00
Fillmore Farms.....	Bennington, Vt.....	Best ram under 1 year old.....	8 00
Fillmore Farms.....	Bennington, Vt.....	2d best ram under 1 year old.....	6 00
H. H. Cherry.....	Xenia, O.....	3d best ram under 1 year old.....	4 00
J. B. Henderson.....	Hickory, O.....	4th best ram under 1 year old.....	3 00
H. H. Cherry.....	Xenia, O.....	5th best ram under 1 year old.....	2 00
Fillmore Farms.....	Bennington, Vt.....	Best ewe 2 years old or over.....	10 00
Fillmore Farms.....	Bennington, Vt.....	2d best ewe 2 years old or over.....	8 00
J. B. Henderson.....	Hickory, O.....	3d best ewe 2 years old or over.....	6 00
J. B. Henderson.....	Hickory, O.....	4th best ewe 2 years old or over.....	4 00
H. H. Cherry.....	Xenia, O.....	5th best ewe 2 years old or over.....	2 00
H. H. Cherry.....	Xenia, O.....	Best ewe 1 year old and under 2.....	10 00
Fillmore Farms.....	Bennington, Vt.....	2d best ewe 1 year old and under 2.....	8 00
Fillmore Farms.....	Bennington, Vt.....	3d best ewe 1 year old and under 2.....	6 00
J. B. Henderson.....	Hickory, O.....	4th best ewe 1 year old and under 2.....	4 00
J. B. Henderson.....	Hickory, O.....	5th best ewe 1 year old and under 2.....	2 00
Fillmore Farms.....	Bennington, Vt.....	Best ewe under 1 year old.....	8 00
Fillmore Farms.....	Bennington, Vt.....	2d best ewe under 1 year old.....	6 00
H. H. Cherry.....	Xenia, O.....	3d best ewe under 1 year old.....	4 00
J. B. Henderson.....	Hickory, O.....	4th best ewe under 1 year old.....	3 00
H. H. Cherry.....	Xenia, O.....	5th best ewe under 1 year old.....	2 00
Fillmore Farms.....	Bennington, Vt.....	Best exhibitor's flock.....	10 00
H. H. Cherry.....	Xenia, O.....	2d best exhibitor's flock.....	8 00
J. B. Henderson.....	Hickory, O.....	3d best exhibitor's flock.....	6 00
H. H. Cherry.....	Xenia, O.....	4th best exhibitor's flock.....	4 00
Interlaken School Farm.....	Rolling Prairie, Ind.....	5th best exhibitor's flock.....	2 00
Fillmore Farms.....	Bennington, Vt.....	Best breeder's young flock.....	10 00
H. H. Cherry.....	Xenia, O.....	2d best breeder's young flock.....	8 00
J. B. Henderson.....	Hickory, O.....	3d best breeder's young flock.....	6 00
Interlaken School Farm.....	Rolling Prairie, Ind.....	4th best breeder's young flock.....	4 00
Fillmore Farms.....	Bennington, Vt.....	Best pen.....	10 00
H. H. Cherry.....	Xenia, O.....	2d best pen.....	8 00
J. B. Henderson.....	Hickory, O.....	3d best pen.....	6 00
Interlaken School Farm.....	Rolling Prairie, Ind.....	4th best pen.....	4 00

CHAMPIONS.

Fillmore Farms.....	Bennington, Vt.....	Champion ram any age.....	Ribbon.
H. H. Cherry.....	Xenia, O.....	2d champion ram any age.....	Reserve
			Ribbon.

CHEVIOTS.

JUDGE, D. B. WATT.

Premiums offered.....	\$256 00
Premiums paid.....	240 00
Entries.....	69
Animals shown in ring.....	45

Name.	Postoffice.	Awards.	Amount.
R. & W. Postle.....	Camp Chase, O.....	Best ram 2 years old or over.....	\$10 00
Raymond D. Grieve.....	Xenia, O.....	2d best ram 2 years old or over.....	8 00
R. & W. Postle.....	Camp Chase, O.....	3d best ram 2 years old or over.....	6 00
Interlaken School Farm.....	Rolling Prairie, Ind.....	4th best ram 2 years old or over.....	4 00
Raymond D. Grieve.....	Xenia, O.....	Best ram 1 year and under 2.....	10 00
Raymond D. Grieve.....	Xenia, O.....	2d best ram 1 year and under 2.....	8 00
R. & W. Postle.....	Camp Chase, O.....	3d best ram 1 year and under 2.....	6 00
R. & W. Postle.....	Camp Chase, O.....	4th best ram 1 year and under 2.....	4 00
Interlaken School Farm.....	Rolling Prairie, Ind.....	5th best ram 1 year and under 2.....	2 00
R. & W. Postle.....	Camp Chase, O.....	Best ram under 1 year old.....	8 00
Raymond D. Grieve.....	Xenia, O.....	2d best ram under 1 year old.....	6 00
R. & W. Postle.....	Camp Chase, O.....	3d best ram under 1 year old.....	4 00
Interlaken School Farm.....	Rolling Prairie, Ind.....	4th best ram under 1 year old.....	3 00
R. & W. Postle.....	Camp Chase, O.....	Best ewe 2 years old or over.....	10 00
Raymond D. Grieve.....	Xenia, O.....	2d best ewe 2 years old or over.....	8 00
R. & W. Postle.....	Camp Chase, O.....	3d best ewe 2 years old or over.....	6 00
Raymond D. Grieve.....	Xenia, O.....	4th best ewe 2 years old or over.....	4 00
A. C. Grieve & Son.....	Xenia, O.....	5th best ewe 2 years old or over.....	2 00
R. & W. Postle.....	Camp Chase, O.....	Best ewe 1 year old and under 2.....	10 00
Raymond D. Grieve.....	Xenia, O.....	2d best ewe 1 year old and under 2.....	8 00
Raymond D. Grieve.....	Xenia, O.....	3d best ewe 1 year old and under 2.....	6 00
A. C. Grieve & Son.....	Xenia, O.....	4th best ewe 1 year old and under 2.....	4 00
R. & W. Postle.....	Camp Chase, O.....	5th best ewe 1 year old and under 2.....	2 00
Raymond D. Grieve.....	Xenia, O.....	Best ewe under 1 year old.....	8 00
Raymond D. Grieve.....	Xenia, O.....	2d best ewe under 1 year old.....	6 00
R. & W. Postle.....	Camp Chase, O.....	3d best ewe under 1 year old.....	4 00
R. & W. Postle.....	Camp Chase, O.....	4th best ewe under 1 year old.....	3 00
A. C. Grieve & Son.....	Xenia, O.....	5th best ewe under 1 year old.....	2 00
R. & W. Postle.....	Camp Chase, O.....	Best exhibitor's flock.....	10 00
Raymond D. Grieve.....	Xenia, O.....	2d best exhibitor's flock.....	8 00
Raymond D. Grieve.....	Xenia, O.....	3d best exhibitor's flock.....	6 00
R. & W. Postle.....	Camp Chase, O.....	4th best exhibitor's flock.....	4 00
Interlaken School Farm.....	Rolling Prairie, Ind.....	5th best exhibitor's flock.....	2 00
R. & W. Postle.....	Camp Chase, O.....	Best breeder's young flock.....	10 00
Raymond D. Grieve.....	Xenia, O.....	2d best breeder's young flock.....	8 00
Interlaken School Farm.....	Rolling Prairie, Ind.....	3d best breeder's young flock.....	6 00
R. & W. Postle.....	Camp Chase, O.....	Best pen.....	10 00
Raymond D. Grieve.....	Xenia, O.....	2d best pen.....	8 00
Interlaken School Farm.....	Rolling Prairie, Ind.....	3d best pen.....	6 00

CHAMPIONS.

R. & W. Postle.....	Camp Chase, O.....	Champion ram any age.....	Ribbon.
Raymond D. Grieve.....	Xenia, O.....	2d champion ram any age.....	Reserve
R. & W. Postle.....	Camp Chase, O.....	Champion ewe any age.....	Ribbon.

FAT SHEEP.

JUDGE, A. G. DANKS.

Premiums offered.....	\$62 00
Premiums paid.....	50 00
Entries.....	14
Animals shown in ring.....	5

Name.	Postoffice.	Awards.	Amount.
R. C. Watt & Son.....	Cedarville, O.....	Best wether 1 year old and under 2.....	\$8 00
F. D. Postle.....	Camp Chase, O.....	2d best wether 1 year old and under 2.....	5 00
F. D. Postle.....	Camp Chase, O.....	Best wether lamb.....	8 00
F. D. Postle.....	Camp Chase, O.....	2d best wether lamb.....	5 00
F. D. Postle.....	Camp Chase, O.....	Best pen of 4 wethers any age.....	12 00
F. D. Postle.....	Camp Chase, O.....	Best pen of 5 wether lambs.....	12 00

WOOL EXHIBIT.

JUDGES, R. A. HAYNE, A. G. DANKS.

Premiums offered.....		\$205 00
Premiums paid.....		83 00
Entries.....	55	
Shown in ring.....	36	

Name.	Postoffice.	Awards.	Amount.
Ira A. Cleaver.....	Delaware, O.....	Lot 1. Best American Merino Ram.....	\$3 00
Ira A. Cleaver.....	W. Brownsville, Pa.....	Lot 1. Best American Merino Ewe.....	3 00
Ira W. Cleaver.....	W. Brownsville, Pa.....	Lot 1. 2d best American Merino Ewe.....	2 00
Freed & Stuart.....	Lancaster, O.....	Lot 2. Best Ewe, Class B.....	3 00
J. F. Walker.....	Gambier, O.....	Lot 2. 2d best Ewe, Class B.....	2 00
J. F. Walker.....	Gambier, O.....	Lot 3. Best Ram, Class C.....	3 00
Freed & Stuart.....	Lancaster, O.....	Lot 3. Best Ewe, Class C.....	3 00
J. F. Walker.....	Gambier, O.....	Lot 3. 2d best Ewe, Class C.....	2 00
L. W. Shaw.....	Pottersburg, O.....	Lot 4. Best Rambouillet Ram.....	3 00
Jno. F. Highslip.....	Kenton, O.....	Lot 4. Best Rambouillet Ewe.....	3 00
Jno. F. Highslip.....	Kenton, O.....	Lot 4. 2d best Rambouillet Ewe.....	2 00
Walter D. Postle.....	Camp Chase, O.....	Lot 5. Best Shropshire Ram.....	3 00
R. & W. Postle.....	Camp Chase, O.....	Lot 5. 2d best Shropshire Ram.....	2 00
Walter Postle.....	Camp Chase, O.....	Lot 5. Best Shropshire Ewe.....	3 00
L. B. Palmer.....	Pataskala, O.....	Lot 5. 2d best Shropshire Ewe.....	2 00
R. W. Palmer.....	Pataskala, O.....	Lot 6. Best Southdown Ewe.....	3 00
F. D. Postle.....	Camp Chase, O.....	Lot 6. 2d best Southdown Ewe.....	2 00
R. & W. Postle.....	Camp Chase, O.....	Lot 9. Best Cheviot Ram.....	3 00
R. & W. Postle.....	Camp Chase, O.....	Lot 9. Best Cheviot Ewe.....	3 00
J. B. Henderson.....	Hickory, O.....	Lot 10. Best Dorset Ram.....	3 00
J. B. Henderson.....	Hickory, O.....	Lot 10. Best Dorset Ewe.....	3 00
J. R. Bickett.....	Xenia, O.....	Lot 12. Best Lincoln Ram.....	3 00
J. R. Bickett.....	Xenia, O.....	Lot 12. Best Lincoln Ewe.....	3 00

COMMERCIAL CLASSES AND GRADES.

J. F. Walker.....	Gambier, O.....	Lot 13. Best Fine XXX Fleece.....	\$3 00
J. F. Walker.....	Gambier, O.....	Lot 14. Best Fine XX Fleece.....	3 00
Freed & Stuart.....	Lancaster, O.....	Lot 14. 2d best Fine XX Fleece.....	2 00
Hartman & Ward.....	Oleine, O.....	Lot 15. Best Fine X Fleece.....	3 00
Freed & Stuart.....	Lancaster, O.....	Lot 15. 2d best Fine X Fleece.....	2 00
J. F. Walker.....	Gambier, O.....	Lot 16. Best Delaine.....	3 00
J. F. Walker.....	Gambier, O.....	Lot 16. 2d best Delaine.....	2 00
J. R. Bickett.....	Xenia, O.....	Lot 23. Braid.....	3 00

FIFTH DEPARTMENT—POULTRY.

C. W. McFARLAND, In Charge.

JOHN T. HEIZER
GEO. E. NELSONSuperintendent
Clerk

JUDGES.

C. E. COE, EUGENE SITES.

Received from entry fees, 1913.....	\$573 25
Premiums offered, 1913.....	2,082 00
Premiums paid, 1913.....	1,836 00
Entries, 1913.....	2,006
Paid superintendents, judges, etc., 1913.....	\$192 50
Received from entry fees, 1912.....	\$1,048 00
Premiums offered, 1912.....	2,082 00
Premiums paid, 1912.....	1,740 00
Total number of Entries, 1912.....	2,495
Paid superintendents, judges, etc., 1912.....	\$321 00
Received from entry fees, 1911.....	\$808 25
Premiums offered, 1911.....	1,816 00
Premiums paid, 1911.....	1,415 00
Total number of Entries, 1911.....	1,552
Paid superintendents, judges, etc., 1911.....	\$216 50
Received from entry fees, 1910.....	\$971 75
Premiums offered, 1910.....	1,824 25
Premiums paid, 1910.....	1,624 75
Total number of Entries, 1910.....	1,790
Paid superintendents, judges, etc., 1910.....	\$198 50

AMERICAN CLASS.

JUDGES, C. E. COE, EUGENE SITES.

Premiums offered.....	\$360 00
Premiums paid.....	252 50
Entries.....	452

Name.	Postoffice.	Awards.	Amount.
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BARRED PLYMOUTH ROCKS.

Chas. McClave.....	New London, O.....	Best cock.....	\$2 00
Dr. Geo. M. Boone.....	Coshocton, O.....	2d best cock.....	1 00
Dr. Geo. M. Boone.....	Coshocton, O.....	3d best cock.....	50
E. P. Roloson.....	Delaware, O., R. 4.....	Best cockerel.....	2 00
E. P. Roloson.....	Delaware, O., R. 4.....	2d best cockerel.....	1 00
Isaac Green.....	Pemberton, O.....	3d best cockerel.....	50
Chas. McClave.....	New London, O.....	Best hen.....	2 00
E. P. Roloson.....	Delaware, O., R. 4.....	2d best hen.....	1 00
Isaac Green.....	Pemberton, O.....	3d best hen.....	50
E. P. Roloson.....	Delaware, O., R. 4.....	Best pullet.....	2 00
Geo. H. Wilking.....	Zanesville, O.....	2d best pullet.....	1 00
E. P. Roloson.....	Delaware, O., R. 4.....	3d best pullet.....	50
Chas. McClave.....	New London, O.....	Best breeding pen.....	3 00

WHITE PLYMOUTH ROCKS.

M. W. Shields.....	Columbus, O., Sta. B.....	Best cock.....	\$2 00
M. M. Myers.....	Marysville, O.....	2d best cock.....	1 00
Chas. McClave.....	New London, O.....	3d best cock.....	50
Geo. S. Moore.....	Clintonville, O.....	Best cockerel.....	2 00
Geo. S. Moore.....	Clintonville, O.....	2d best cockerel.....	1 00
Geo. S. Moore.....	Clintonville, O.....	3d best cockerel.....	50
Geo. S. Moore.....	Clintonville, O.....	Best hen.....	2 00
M. W. Shields.....	Columbus, O., Sta. B.....	2d best hen.....	1 00
Geo. S. Moore.....	Clintonville, O.....	3d best hen.....	50
Geo. S. Moore.....	Clintonville, O.....	Best pullet.....	2 00
Geo. S. Moore.....	Clintonville, O.....	2d best pullet.....	1 00
Geo. S. Moore.....	Clintonville, O.....	3d best pullet.....	50
M. W. Shields.....	Columbus, O., Sta. B.....	Best breeding pen.....	3 00
Geo. S. Moore.....	Clintonville, O.....	2d best breeding pen.....	2 00
Osborn Poultry Farm.....	Mansfield, O.....	3d best breeding pen.....	1 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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BUFF PLYMOUTH ROCKS.

Adron A. Tracht.....	165 Mithoff St., Colum- bus, O.....	Best cock.....	\$2 00
Truman Baughman.....	Johnstown, O.....	2d best cock.....	1 00
M. M. Myers.....	Marysville, O.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Adron A. Tracht.....	165 Mithoff St., Colum- bus, O.....	2d best cockerel.....	1 00
Edward Davidson.....	Carey, O.....	3d best cockerel.....	50
W. S. Limes.....	Linden Heights, O.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
Truman Baughman.....	Johnstown, O.....	3d best hen.....	50
Adron A. Tracht.....	165 Mithoff St., Colum- bus, O.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00
Edward Davidson.....	Carey, O.....	3d best pullet.....	50

PARTRIDGE PLYMOUTH ROCKS.

Julius Frank & Son.....	Akron, O.....	Best cockerel.....	\$2 00
Julius Frank & Son.....	Akron, O.....	Best pullet.....	2 00

COLUMBIAN PLYMOUTH ROCKS.

Otter Creek Poultry Farm.....	Toledo, O.....	Best cock.....	\$2 00
Otter Creek Poultry Farm.....	Toledo, O.....	Best hen.....	2 00
Otter Creek Poultry Farm.....	Toledo, O.....	2d best hen.....	1 00

COLUMBIAN WYANDOTTE.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
Chas. McClave.....	New London, O.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best cockerel.....	1 00
Chas. McClave.....	New London, O.....	3d best cockerel.....	50
Chas. McClave.....	New London, O.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best hen.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best pullet.....	1 00
Chas. McClave.....	New London, O.....	3d best pullet.....	50
Chas. McClave.....	New London, O.....	Best breeding pen.....	3 00

SILVER WYANDOTTE.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Wm. Champion.....	Mt. Vernon, O.....	2d best cockerel.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cockerel.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best hen.....	50
G. F. Stewart.....	Cochocton, O.....	Best pullet.....	2 00
G. F. Stewart.....	Cochocton, O.....	2d best pullet.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best pullet.....	50
G. F. Stewart.....	Cochocton, O.....	Best breeding pen.....	3 00
Cyrus B. Austin.....	Delaware, O.....	2d best breeding pen.....	2 00
Jas. Skeen & Son.....	Clintonville, O.....	3d best breeding pen.....	1 00

GOLDEN WYANDOTTE.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
Chas. McClave.....	New London, O.....	2d best cock.....	1 00
Wm. Wolfarth.....	Mansfield, O.....	3d best cock.....	50
Wm. Wolfarth.....	Mansfield, O.....	Best cockerel.....	2 00
Wm. Wolfarth.....	Mansfield, O.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best cockerel.....	50
M. M. Myers.....	Marysville, O.....	Best hen.....	2 00
Chas. McClave.....	New London, O.....	2d best hen.....	1 00
Wm. Wolfarth.....	Mansfield, O.....	3d best hen.....	50
Wm. Wolfarth.....	Mansfield, O.....	Best pullet.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best pullet.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best pullet.....	50
Chas. McClave.....	New London, O.....	Best breeding pen.....	3 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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WHITE WYANDOTTE.

Sherman Bowden	Mansfield, O.	Best cock	\$2 00
W. Sewell Painter	Bellefontaine, O.	2d best cock	1 00
Chas. McClave	New London, O.	3d best cock	50
W. J. Scholl	Bremen, O.	Best cockerel	2 00
Sherman Bowden	Mansfield, O.	2d best cockerel	1 00
Mrs. Geo. E. Tyler	Linden Heights, O.	3d best cockerel	50
Sherman Bowden	Mansfield, O.	Best hen	2 00
Sherman Bowden	Mansfield, O.	2d best hen	1 00
Mrs. Geo. E. Tyler	Linden Heights, O.	3d best hen	50
Sherman Bowden	Mansfield, O.	Best pullet	2 00
Julius Frank & Son	Akron, O.	2d best pullet	1 00
Sherman Bowden	Mansfield, O.	3d best pullet	50
Sherman Bowden	Mansfield, O.	Best breeding pen	3 00
D. L. Ziegler	Delaware, O.	2d best breeding pen	2 00
Sherman Bowden	Mansfield, O.	3d best breeding pen	1 00

BLACK WYANDOTTE.

Julius Frank & Son	Akron, O.	Best hen	\$2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best hen	1 00

BUFF WYANDOTTE.

Chas. M. Godfrey	Ashland, O.	Best cock	\$2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best cock	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best cock	50
S. G. Hoke & Son	Spring Grove, Pa.	Best cockerel	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best cockerel	1 00
M. M. Myers	Marysville, O.	3d best cockerel	50
Chas. M. Godfrey	Ashland, O.	Best hen	2 00
M. M. Myers	Marysville, O.	2d best hen	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best hen	50
S. G. Hoke & Son	Spring Grove, Pa.	Best pullet	2 00
M. M. Myers	Marysville, O.	2d best pullet	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best pullet	50

PARTRIDGE WYANDOTTE.

L. E. Baker	Mechanicsburg, O.	Best cock	\$2 00
O. N. McGrew	Troy, O.	2d best cock	1 00
L. E. Baker	Mechanicsburg, O.	3d best cock	50
Donna Hanly	Mechanicsburg, O.	Best cockerel	2 00
O. N. McGrew	Troy, O.	2d best cockerel	1 00
Julius Frank & Son	Akron, O.	3d best cockerel	50
Donna Hanly	Mechanicsburg, O.	Best hen	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best hen	1 00
O. N. McGrew	Troy, O.	3d best hen	50
Donna Hanly	Mechanicsburg, O.	Best pullet	2 00
O. N. McGrew	Troy, O.	2d best pullet	1 00
O. N. McGrew	Troy, O.	3d best pullet	50
Donna Hanly	Mechanicsburg, O.	Best breeding pen	3 00
L. E. Baker	Mechanicsburg, O.	2d best breeding pen	2 00
O. N. McGrew	Troy, O.	3d best breeding pen	1 00

SILVER PENCILED WYANDOTTE.

Hugh A. Rose	Welland, Ontario.	Best cock	\$2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best cock	1 00
Chas. McClave	New London, O.	3d best cock	50
S. G. Hoke & Son	Spring Grove, Pa.	Best cockerel	2 00
Julius Frank & Son	Akron, O.	2d best cockerel	1 00
Hugh A. Rose	Welland, Ontario.	Best hen	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best hen	1 00
Julius Frank & Son	Akron, O.	3d best hen	50
S. G. Hoke & Son	Spring Grove, Pa.	Best pullet	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best pullet	1 00
Julius Frank & Son	Akron, O.	3d best pullet	50

BLACK JAVA.

Chas. McClave	New London, O.	Best cock	\$2 00
Chas. McClave	New London, O.	2d best cock	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best cock	50
Chas. McClave	New London, O.	Best cockerel	2 00
Chas. McClave	New London, O.	Best hen	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best hen	1 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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BLACK JAVA—Concluded.

Chas. McClave.....	New London, O.....	3d best hen.....	\$0 50
Chas. McClave.....	New London, O.....	Best pullet.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best pullet.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best pullet.....	50
Chas. McClave.....	New London, O.....	Best breeding pen.....	8 00

BUCKEYE.

Otter Creek Poultry Farm	Toledo, O.....	Best cockerel.....	\$2 00
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R. C. RHODE ISLAND RED.

Mrs. Carl C. Beatty.....	Van Wert, O.....	Best cock.....	\$2 00
Mrs. Carl C. Beatty.....	Van Wert, O.....	2d best cock.....	1 00
W. A. Dumond.....	Columbus, O.....	3d best cock.....	50
W. A. Dumond.....	Columbus, O.....	Best cockerel.....	2 00
C. C. Jackson.....	Centerburg, O.....	2d best cockerel.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best cockerel.....	50
W. A. Dumond.....	Columbus, O.....	Best hen.....	2 00
L. G. Cary.....	Trimble, O.....	2d best hen.....	1 00
Mrs. Carl C. Beatty.....	Van Wert, O.....	3d best hen.....	50
John J. Bohlander.....	Columbus, O.....	Best pullet.....	2 00
Mrs. Carl C. Beatty.....	Van Wert, O.....	2d best pullet.....	1 00
W. A. Dumond.....	Columbus, O.....	3d best pullet.....	50
W. A. Dumond.....	Columbus, O.....	Best breeding pen.....	8 00

ROSE COMB DOMINIQUE.

Chas. McClave.....	New London, O.....	Best cock.....	\$2 00
M. M. Myers.....	Marysville, O.....	2d best cock.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best cock.....	50
Chas. McClave.....	New London, O.....	Best cockerel.....	2 00
Julius Frank & Son.....	Akron, O.....	Best hen.....	2 00
M. M. Myers.....	Marysville, O.....	2d best hen.....	1 00
Chas. McClave.....	New London, O.....	3d best hen.....	50
Chas. McClave.....	New London, O.....	Best pullet.....	2 00
Chas. McClave.....	New London, O.....	Best breeding pen.....	3 00

S. C. RHODE ISLAND RED.

Fred J. Mebs.....	Columbus, O.....	Best cock.....	\$2 00
Harvey Baker.....	Johnstown, O.....	2d best cock.....	1 00
Mrs. Carl C. Beatty.....	Van Wert, O.....	3d best cock.....	50
Mrs. Carl C. Beatty.....	Van Wert, O.....	Best cockerel.....	2 00
L. G. Cary.....	Trimble, O.....	2d best cockerel.....	1 00
Mrs. Carl C. Beatty.....	Van Wert, O.....	3d best cockerel.....	50
Oscar E. Miles.....	602 Hartman Bldg., Co- lumbus, O.....	Best hen.....	2 00
East Side Poultry Yards.....	413 Stoddart Ave., Co- lumbus, O.....	2d best hen.....	1 00
Enock Chamberlain.....	Franklin, O.....	3d best hen.....	50
Mrs. S. R. Light.....	McComb, O.....	Best pullet.....	2 00
L. G. Cary.....	Trimble, O.....	2d best pullet.....	1 00
L. G. Cary.....	Trimble, O.....	3d best pullet.....	50
Mrs. Carl C. Beatty.....	Van Wert, O.....	Best breeding pen.....	3 00
East Side Poultry Yards.....	413 Stoddart Ave., Co- lumbus, O.....	2d best breeding pen.....	2 00
Oscar E. Miles.....	602 Hartman Bldg., Co- lumbus, O.....	3d best breeding pen.....	1 00

ASIATIC CLASS.

JUDGES, C. E. COE, EUGENE SITES.

Premiums offered.....	\$154 00
Premiums paid.....	103 50
Entries.....	103

Name.	Postoffice.	Awards.	Amount.
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LIGHT BRAHMA.

S. G. Hoke & Son.....	Spring Grove, Pa.	Best cock.....	\$2 00
Hugh A. Rose.....	Welland, Ontario.	2d best cock.....	1 00
Chas. McClave.....	New London, O.	Best cockerel.....	2 00
Hugh A. Rose.....	Welland, Ontario.	2d best cockerel.....	1 00
P. N. Barnes.....	Troy, O.	3d best cockerel.....	50
J. H. Copeland.....	Athens, O.	Best hen.....	2 00
Hugh A. Rose.....	Welland Ontario.	2d best hen.....	1 00
Chas. McClave.....	New London, O.	3d best hen.....	50
P. N. Barnes.....	Troy, O.	Best pullet.....	2 00
P. N. Barnes.....	Troy, O.	2d best pullet.....	1 00
Chas. McClave.....	New London, O.	3d best pullet.....	50
Hugh A. Rose.....	Welland, Ontario.	Best breeding pen.....	3 00
Chas. McClave.....	New London, O.	2d best breeding pen.....	2 00

DARK BRAHMA.

S. G. Hoke & Son.....	Spring Grove, Pa.	Best cock.....	\$2 00
Chas. McClave.....	New London, O.	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.	3d best cock.....	50
Hugh A. Rose.....	Welland, Ontario.	Best cockerel.....	2 00
Chas. McClave.....	New London, O.	2d best cockerel.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.	3d best cockerel.....	50
Hugh A. Rose.....	Welland, Ontario.	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.	3d best hen.....	50
Hugh A. Rose.....	Welland, Ont.	Best pullet.....	2 00
Chas. McClave.....	New London, O.	2d best pullet.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.	3d best pullet.....	50
Chas. McClave.....	New London, O.	Best breeding pen.....	3 00

BUFF COCHIN.

S. G. Hoke & Son.....	Spring Grove, Pa.	Best cock.....	\$2 00
Hugh A. Rose.....	Welland, Ontario.	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.	3d best cock.....	50
Hugh A. Rose.....	Welland, Ontario.	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.	2d best hen.....	1 00
Truman Baughman.....	Johnstown, O.	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.	2d best pullet.....	1 00

PARTRIDGE COCHIN.

S. G. Hoke & Son.....	Spring Grove, Pa.	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.	Best cockerel.....	2 00
Julius Frank & Son.....	Akron, O.	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.	Best pullet.....	2 00

WHITE COCHIN.

S. G. Hoke & Son.....	Spring Grove, Pa.	Best cock.....	\$2 00
Hugh A. Rose.....	Welland, Ontario.	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.	2d best cockerel.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.	Best hen.....	2 00
Hugh A. Rose.....	Welland, Ontario.	2d best hen.....	1 00
Hugh A. Rose.....	Welland, Ontario.	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.	2d best pullet.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.	3d best pullet.....	50

BLACK COCHIN.

S. G. Hoke & Son.....	Spring Grove, Pa.	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.	Best pullet.....	2 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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BLACK LANGSHAN.

M. M. Myers.....	Marysville, O.....	Best cock.....	\$2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Will P. Cary.....	Urbana, O.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best cockerel.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Chas. McClave.....	New London, O.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best hen.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best pullet.....	1 00
Will P. Cary.....	Urbana, O.....	3d best pullet.....	50

WHITE LANGSHAN.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
C. C. Leitnaker.....	Basil, O.....	Best cockerel.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best cockerel.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
C. C. Leitnaker.....	Basil, O.....	2d best pullet.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best pullet.....	50

MEDITERRANEAN CLASS.

JUDGE, EUGENE SITES.

Premiums offered.....	\$294 00
Premiums paid.....	224 00
Entries.....	274

Name.	Postoffice.	Awards.	Amount.
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S. C. BROWN LEGHORN.

Truman Baughman.....	Johnstown, O.....	Best cock.....	\$2 00
Bensch Bros.....	Rocky Ridge, O.....	2d best cock.....	1 00
Bensch Bros.....	Rocky Ridge, O.....	3d best cock.....	50
Bensch Bros.....	Rocky Ridge, O.....	Best cockerel.....	2 00
Dr. O. G. Grady.....	Orrville, O.....	2d best cockerel.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cockerel.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
Bensch Bros.....	Rocky Ridge, O.....	3d best hen.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Bensch Bros.....	Rocky Ridge, O.....	2d best pullet.....	1 00
Bensch Bros.....	Rocky Ridge, O.....	3d best pullet.....	50
Bensch Bros.....	Rocky Ridge, O.....	Best breedin pen.....	3 00
Dr. O. G. Grady.....	Orrville, O.....	2d best breeding pen.....	2 00
Chas. McClave.....	New London, O.....	3d best breeding pen.....	1 00

R. C. BROWN LEGHORN.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Chas. McClave.....	New London, O.....	Best breeding pen.....	3 00

S. C. WHITE LEGHORN.

E. E. Eddy.....	Trimble, O.....	Best cock.....	\$2 00
E. E. Eddy.....	Trimble, O.....	2d best cock.....	1 00
M. M. Myers.....	Marysville, O.....	3d best cock.....	50
E. E. Eddy.....	Trimble, O.....	Best cockerel.....	2 00
E. E. Eddy.....	Trimble, O.....	2d best cockerel.....	1 00
W. R. Watta.....	Columbus, O.....	3d best cockerel.....	50
Chas. McClave.....	New London, O.....	Best hen.....	2 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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S. C. WHITE LEGHORN—Concluded.

Enoch Chamberlain.....	Franklin, O.....	2d best hen.....	\$1 00
C. M. Dressel.....	Convoy, O.....	3d best hen.....	1 50
E. E. Eddy.....	Trimble, O.....	Best pullet.....	2 00
W. R. Watts.....	Columbus, O.....	2d best pullet.....	1 00
W. R. Watts.....	Columbus, O.....	3d best pullet.....	50
Chas. McClave.....	New London, O.....	Best breeding pen.....	3 00
G. B. Norris.....	Columbus, O.....	2d best breeding pen.....	2 00
E. E. Eddy.....	Trimble, O.....	3d best breeding pen.....	1 00

R. C. WHITE LEGHORN.

Louis H. Perry.....	Clay, N. Y.....	Best cock.....	\$2 00
Chas. McClave.....	New London, O.....	2d best cock.....	1 50
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cock.....	50
Chas. McClave.....	New London, O.....	Best cockerel.....	2 00
Louis H. Perry.....	Clay, N. Y.....	2d best cockerel.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cockerel.....	50
Louis H. Perry.....	Clay, N. Y.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
M. M. Myers.....	Marysville, O.....	3d best hen.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Chas. McClave.....	New London, O.....	2d best pullet.....	1 00
Louis H. Perry.....	Clay, N. Y.....	3d best pullet.....	50
Louis H. Perry.....	Clay, N. Y.....	Best breeding pen.....	3 00
Chas. McClave.....	New London, O.....	2d best breeding pen.....	2 00

S. C. BLACK LEGHORN.

Milo L. Myers.....	Marysville, O.....	Best cock.....	\$2 00
Milo L. Myers.....	Marysville, O.....	2d best cock.....	1 00
M. M. Myers.....	Marysville, O.....	3d best cock.....	50
Chas. Boyer.....	Urbana, O.....	Best cockerel.....	2 00
Milo L. Myers.....	Marysville, O.....	2d best cockerel.....	1 00
Milo L. Myers.....	Marysville, O.....	3d best cockerel.....	50
Milo L. Myers.....	Marysville, O.....	Best hen.....	2 00
Milo L. Myers.....	Marysville, O.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best hen.....	50
Milo L. Myers.....	Marysville, O.....	Best pullet.....	2 00
Milo L. Myers.....	Marysville, O.....	2d best pullet.....	1 00
Chas. Boyer.....	Urbana, O.....	3d best pullet.....	50
Chas. Boyer.....	Urbana, O.....	Best breeding pen.....	3 00
Milo L. Myers.....	Marysville, O.....	2d best breeding pen.....	2 00

S. C. BUFF LEGHORN.

O. C. Wright.....	Canal Winchester, O.....	Best cock.....	\$2 00
Chas. McClave.....	New London, O.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cock.....	50
Chas. McClave.....	New London, O.....	Best cockerel.....	2 00
O. C. Wright.....	Canal Winchester, O.....	2d best cockerel.....	1 00
John B. Acker.....	Urbana, O.....	3d best cockerel.....	50
Chas. McClave.....	New London, O.....	Best hen.....	2 00
O. C. Wright.....	Canal Winchester, O.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best hen.....	50
John B. Acker.....	Urbana, O.....	Best pullet.....	2 00
John B. Acker.....	Urbana, O.....	2d best pullet.....	1 00
O. C. Wright.....	Canal Winchester, O.....	3d best pullet.....	50
Chas. McClave.....	New London, O.....	Best breeding pen.....	3 00

ROSE COMB BUFF LEGHORN.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00

SILVER LEGHORN.

Julius Frank & Son.....	Akron, O.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Chas. McClave.....	New London, O.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best cockerel.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Chas. McClave.....	New London, O.....	2d best hen.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best hen.....	50
Julius Frank & Son.....	Akron, O.....	Best pullet.....	2 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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S. C. BLACK MINORCA.

Julius Frank & Son	Akron, O.	Best cock	\$2 00
Hugh A. Rose	Welland, Ontario.	2d best cock	1 00
Hugh A. Rose	Welland, Ontario.	Best cockerel	2 00
Hugh A. Rose	Welland, Ontario.	Best hen	2 00
Chas. McClave	New London, O.	2d best hen	1 00
O. K. Brown	Ashland, O.	2d best hen	50
Hugh A. Rose	Welland, Ontario.	Best pullet	2 00
Carleton Berry	1473 Summit St., Columbus, O.	2d best pullet	1 00
Carleton Berry	1473 Summit St., Columbus, O.	3d best pullet	50
Carleton Berry	1473 Summit St., Columbus, O.	Best breeding pen	3 00
O. K. Brown	Ashland, O.	2d best breeding pen	2 00

R. C. BLACK MINORCA.

Hugh A. Rose	Welland, Ontario.	Best cock	\$2 00
Hugh A. Rose	Welland, Ontario.	Best cockerel	2 00
Chas. McClave	New London, O.	2d best cockerel	1 00
Hugh A. Rose	Welland, Ontario.	Best hen	2 00
Chas. McClave	New London, O.	2d best hen	1 00
Hugh A. Rose	Welland, Ontario.	Best pullet	2 00
Chas. McClave	New London, O.	2d best pullet	1 00
Chas. McClave	New London, O.	Best breeding pen	3 00

S. C. WHITE MINORCA.

Hugh A. Rose	Welland, Ontario.	Best cock	\$2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best cock	1 00
Hugh A. Rose	Welland, Ontario.	Best cockerel	2 00
M. M. Myers	Marysville, O.	2d best cockerel	1 00
S. G. Hoke & Son	Spring Grove, Pa.	Best hen	2 00
M. M. Myers	Marysville, O.	2d best hen	1 00
M. M. Myers	Marysville, O.	Best pullet	2 00
Hugh A. Rose	Welland, Ontario.	2d best pullet	1 00
M. M. Myers	Marysville, O.	3d best pullet	50

BLUE ANDALUSIAN.

Hugh A. Rose	Welland, Ontario.	Best cock	\$2 00
Chas. McClave	New London, O.	2d best cock	1 00
Hugh A. Rose	Welland, Ontario.	Best cockerel	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best cockerel	1 00
Chas. McClave	New London, O.	3d best cockerel	50
Hugh A. Rose	Welland, Ontario.	Best hen	2 00
Chas. McClave	New London, O.	2d best hen	1 00
Hugh A. Rose	Welland, Ontario.	Best pullet	2 00
Chas. McClave	New London, O.	2d best pullet	1 00
Hugh A. Rose	Welland, Ontario.	Best breeding pen	3 00

WHITE FACED BLACK SPANISH.

Hugh A. Rose	Welland, Ontario.	Best cock	\$2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best cock	1 00
S. G. Hoke & Son	Spring Grove, Pa.	Best cockerel	2 00
Hugh A. Rose	Welland, Ontario.	Best hen	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best hen	1 00
S. G. Hoke & Son	Spring Grove, Pa.	Best pullet	2 00

ANCONA.

S. G. Hoke & Son	Spring Grove, Pa.	Best cock	\$2 00
M. M. Myers	Marysville, O.	Best cockerel	2 00
Chas. McClave	New London, O.	2d best cockerel	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best cockerel	50
C. C. Jackson	Centerburg, O.	Best hen	2 00
Chas. McClave	New London, O.	2d best hen	1 00
A. J. Rice	Crooksville, O.	3d best hen	50
S. G. Hoke & Son	Spring Grove, Pa.	Best pullet	2 00
Truman Baughman	Johnstown, O.	2d best pullet	1 00
M. M. Myers	Marysville, O.	3d best pullet	50
C. C. Jackson	Centerburg, O.	Best breeding pen	3 00
Chas. McClave	New London, O.	2d best breeding pen	2 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
CAMPINE.			
Jonathan Hay.....	Ashville, O.....	Best cock.....	\$2 00
John J. Bohlander.....	Columbus, O.....	Best cockerel.....	2 00
Dr. Geo. Snider.....	Cardington, O.....	2d best cockerel.....	1 00
Jonathan Hay.....	Ashville, O.....	3d best cockerel.....	50
S. Wm. Wenlinger.....	Columbus, O.....	Best hen.....	2 00
S. Wm. Wenlinger.....	Columbus, O.....	2d best hen.....	1 00
Jonathan Hay.....	Ashville, O.....	3d best hen.....	50
John J. Bolander.....	Columbus, O.....	Best pullet.....	2 00
Dr. Geo. Snider.....	Cardington, O.....	2d best pullet.....	1 00
C. Coverdale.....	550 Carpenter St., Co- lumbus, O.....	3d best pullet.....	50

ENGLISH CLASS.

JUDGES, C. E. COE, EUGENE SITES.

Premiums offered.....	\$140 00
Premiums paid.....	113 00
Entries.....	142

Name.	Postoffice.	Awards.	Amount.
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WHITE ORPINGTON.

A. M. Rainey.....	Trimble, O.....	Best cock.....	\$2 00
J. L. Stephenson.....	Jacksonville, O.....	2d best cock.....	1 00
Mrs. S. T. Budd.....	Clintonville, O.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
J. L. Stephenson.....	Jacksonville, O.....	2d best cockerel.....	1 00
H. E. Young.....	Bremen, O.....	3d best cockerel.....	50
W. E. Marquis.....	Trimble, O.....	Best hen.....	2 00
J. L. Stephenson.....	Jacksonville, O.....	2d best hen.....	1 00
J. L. Stephenson.....	Jacksonville, O.....	3d best hen.....	50
J. L. Stephenson.....	Jacksonville, O.....	Best pullet.....	2 00
H. E. Young.....	Bremen, O.....	2d best pullet.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best pullet.....	50
J. L. Stephenson.....	Jacksonville, O.....	Best breeding pen.....	3 00
H. E. Young.....	Bremen, O.....	2d best breeding pen.....	2 00
Mrs. S. T. Budd.....	Clintonville, O.....	3d best breeding pen.....	1 00

BLACK ORPINGTON.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
The Billy Hoover Farms.....	Lima, O.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best cock.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
Chas. McClave.....	New London, O.....	2d best hen.....	1 00
The Billy Hoover Farms.....	Lima, O.....	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, O.....	2d best pullet.....	1 00
Chas. McClave.....	New London, O.....	Best breeding pen.....	3 00
Syl. Thos. McClave.....	Columbus, O.....	2d best breeding pen.....	2 00
The Billy Hoover Farms.....	Lima, O.....	3d best breeding pen.....	1 00

BUFF ORPINGTON.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
Chas. McClave.....	New London, O.....	2d best cock.....	1 00
Homer Crumrine.....	Urbana, O.....	Best cockerel.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best cockerel.....	1 00
The Billy Hoover Farms.....	Lima, O.....	Best hen.....	2 00
Chas. McClave.....	New London, O.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best hen.....	50
Homer Crumrine.....	Urbana, O.....	Best pullet.....	2 00
Homer Crumrine.....	Urbana, O.....	2d best pullet.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best pullet.....	50
The Billy Hoover Farms.....	Lima, O.....	Best breeding pen.....	3 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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REDCAP.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
C. S. Rice.....	Spencer, O.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best cock.....	50
C. S. Rice.....	Spencer, O.....	Best cockerel.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best cockerel.....	1 00
C. S. Rice.....	Spencer, O.....	3d best cockerel.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best hen.....	50
C. S. Rice.....	Spencer, O.....	Best pullet.....	2 00
C. S. Rice.....	Spencer, O.....	2d best pullet.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best pullet.....	50
C. S. Rice.....	Spencer, O.....	Best breeding pen.....	3 00
C. S. Rice.....	Spencer, O.....	2d best breeding pen.....	2 00

WHITE DORKING.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best cockerel.....	50
Julius Frank & Son.....	Akron, O.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best pullet.....	50

SILVER GRAY DORKING.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
Julius Frank & Son.....	Akron, Ohio.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cock.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best cockerel.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best pullet.....	50

COLORED DORKING.

Julius Frank & Son.....	Akron, O.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best cock.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best cockerel.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best pullet.....	50

HAMBURG CLASS.

JUDGE, C. E. COE.

Premiums offered.....	\$120 00
Premiums paid.....	97 50
Entries.....	104

Name.	Postoffice.	Awards.	Amount.
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GOLDEN SPANGLED HAMBURG.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
Julius Frank & Son.....	Akron, O.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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GOLDEN SPANGLED HAMBURG—Concluded.

Hugh A. Rose.....	Welland, Ontario.....	2d best cockerel.....	\$1 00
Julius Frank & Son.....	Akron, O.....	3d best cockerel.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best hen.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best hen.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best pullet.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best pullet.....	50
Julius Frank & Son.....	Akron, O.....	Best breeding pen.....	3 00

SILVER SPANGLED HAMBURG.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best cock.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best cockerel.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best pullet.....	50
Julius Frank & Son.....	Akron, O.....	Best breeding pen.....	3 00

GOLDEN PENCILED HAMBURG.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
Julius Frank & Son.....	Akron, O.....	2d best cock.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best cockerel.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best cockerel.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best hen.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best pullet.....	1 00

SILVER PENCILED HAMBURG.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
Julius Frank & Son.....	Akron, O.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best cock.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best cockerel.....	50
Julius Frank & Son.....	Akron, O.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best pullet.....	50
Julius Frank & Son.....	Akron, O.....	Best breeding pen.....	3 00

BLACK HAMBURG.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cock.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best cockerel.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cockerel.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best pullet.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best pullet.....	50
Julius Frank & Son.....	Akron, O.....	Best breeding pen.....	3 00

WHITE HAMBURG.

Julius Frank & Son.....	Akron, O.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
M. M. Myer.....	Marysville, O.....	3d best cock.....	50

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount
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WHITE HAMBURG—Concluded.

Julius Frank & Son.....	Akron, O.....	Best cockerel.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
Julius Frank & Son.....	Akron, O.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
M. M. Myers.....	Marysville, O.....	3d best hen.....	50
Julius Frank & Son.....	Akron, O.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00
Julius Frank & Son.....	Akron, O.....	Best breeding pen.....	3 00

POLISH CLASS.

JUDGE, EUGENE SITES.

Premiums offered.....	\$112 00
Premiums paid.....	106 50
Entries.....	91

Name.	Postoffice.	Awards.	Amount.
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W. C. BLACK POLISH.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Chas. McClave.....	New London, O.....	3d best cock.....	50
Julius Frank & Son.....	Akron, O.....	Best cockerel.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best cockerel.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best hen.....	1 00
Chas. McClave.....	New London, O.....	3d best hen.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best pullet.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best pullet.....	50

BEARDED SILVER POLISH.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best cock.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best pullet.....	1 00

NON-BEARDED SILVER POLISH.

Julius Frank & Son.....	Akron, O.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best cock.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00

BEARDED GOLDEN POLISH

Julius Frank & Son.....	Akron, O.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best hen.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best hen.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best pullet.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best pullet.....	50

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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NON-BEARDED GOLDEN POLISH.

Hugh A. Rose	Welland, Ontario	Best cock	\$2 00
S. G. Hoke & Son	Spring Grove, Pa	2d best cock	1 00
Chas. McClave	New London, O	3d best cock	50
Hugh A. Rose	Welland, Ontario	Best cockerel	2 00
Julius Frank & Son	Akron, O	2d best cockerel	1 00
S. G. Hoke & Son	Spring Grove, Pa	3d best cockerel	50
Julius Frank & Son	Akron, O	Best hen	2 00
Hugh A. Rose	Welland, Ontario	2d best hen	1 00
S. G. Hoke & Son	Spring Grove, Pa	3d best hen	50
Hugh A. Rose	Welland, Ontario	Best pullet	2 00
S. G. Hoke & Son	Spring Grove, Pa	2d best pullet	1 00

BEARDED WHITE POLISH.

Hugh A. Rose	Welland, Ontario	Best cock	\$2 00
S. G. Hoke & Son	Spring Grove, Pa	2d best cock	1 00
M. M. Myers	Marysville, O	3d best cock	50
S. G. Hoke & Son	Spring Grove, Pa	Best cockerel	2 00
Hugh A. Rose	Welland, Ontario	2d best cockerel	1 00
S. G. Hoke & Son	Spring Grove, Pa	3d best cockerel	2 00
Hugh A. Rose	Welland, Ontario	Best hen	1 00
Julius Frank & Son	Akron, O	2d best hen	50
Hugh A. Rose	Welland, Ontario	3d best hen	2 00
S. G. Hoke & Son	Spring Grove, Pa	Best pullet	1 00
Julius Frank & Son	Akron, O	2d best pullet	50

NON-BEARDED WHITE POLISH.

Hugh A. Rose	Welland, Ontario	Best cock	\$2 00
S. G. Hoke & Son	Spring Grove, Pa	2d best cock	1 00
Julius Frank & Son	Akron, O	3d best cock	50
S. G. Hoke & Son	Spring Grove, Pa	Best cockerel	2 00
Julius Frank & Son	Akron, O	2d best cockerel	1 00
Hugh A. Rose	Welland, Ontario	3d best cockerel	50
Hugh A. Rose	Welland, Ontario	Best hen	2 00
Julius Frank & Son	Akron, O	2d best hen	1 00
S. G. Hoke & Son	Spring Grove, Pa	3d best hen	50
S. G. Hoke & Son	Spring Grove, Pa	Best pullet	2 00
Hugh A. Rose	Welland, Ontario	2d best pullet	1 00
Julius Frank & Son	Akron, O	3d best pullet	50

BUFF LACED POLISH.

Hugh A. Rose	Welland, Ontario	Best cock	\$2 00
S. G. Hoke & Son	Spring Grove, Pa	2d best cock	1 00
M. M. Myers	Marysville, O	3d best cock	50
S. G. Hoke & Son	Spring Grove, Pa	Best cockerel	2 00
Hugh A. Rose	Welland, Ontario	2d best cockerel	1 00
Julius Frank & Son	Akron, O	3d best cockerel	50
Hugh A. Rose	Welland, Ontario	Best Hen	2 00
S. G. Hoke & Son	Spring Grove, Pa	2d best hen	1 00
S. G. Hoke & Son	Spring Grove, Pa	3d best hen	50
S. G. Hoke & Son	Spring Grove, Pa	Best pullet	2 00
Julius Frank & Son	Akron, O	2d best pullet	1 00
Hugh A. Rose	Welland, Ontario	3d best pullet	50

FRENCH CLASS.

JUDGE, EUGENE SITES.

Premiums offered	\$48 00
Premiums paid	40 50
Entries	57

Name.	Postoffice.	Awards.	Amount.
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MOTTLED HOUDAN.

J. L. Metzler	Findlay, O	Best cock	\$2 00
S. G. Hoke & Son	Spring Grove, Pa	2d best cock	1 00
Dr. G. G. Billman	Sullivan, Ind.	3d best cock	50
Hugh A. Rose	Welland, Ontario	Best cockerel	2 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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MOTTLED HOUDAN—Concluded.

Dr. G. G. Billman.....	Sullivan, Ind.....	2d best cockerel.....	1 00
Dr. G. G. Billman.....	Sullivan, Ind.....	3d best cockerel.....	50
J. L. Metzler.....	Findlay, O.....	Best hen.....	2 00
J. L. Metzler.....	Findlay, O.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
Dr. G. G. Billman.....	Sullivan, Ind.....	2d best pullet.....	1 00
Dr. G. G. Billman.....	Sullivan, Ind.....	3d best pullet.....	50
J. L. Metzler.....	Findlay, O.....	Best breeding pen.....	3 00
Dr. G. G. Billman.....	Sullivan, Ind.....	2d best breeding pen.....	2 00
Dr. G. G. Billman.....	Sullivan, Ind.....	3d best breeding pen.....	1 00

BLACK CREVECOEUR.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best hen.....	1 00

BLACK LA FLECHE.

Julius Frank & Son.....	Akron, O.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best hen.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00

GAME AND GAME BANTAM CLASS.

JUDGE, EUGENE SITES.

Premiums offered.....	\$224 00
Premiums paid.....	147 50
Entries.....	162

Name.	Postoffice.	Awards.	Amount.
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BLACK BREASTED RED GAME.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
Chas. McClave.....	New London, O.....	2d best cock.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
Chas. McClave.....	New London, O.....	3d best hen.....	50
Chas. McClave.....	New London, O.....	Best pullet.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best pullet.....	1 00

BROWN RED GAME.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
Julius Frank & Son.....	Akron, O.....	Best cockerel.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
Chas. McClave.....	New London, O.....	2d best hen.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best pullet.....	1 00

GOLDEN DUCKWING GAME.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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SILVER DUCKWING GAME.

Chas. McClave.....	New London, O.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Chas. McClave.....	New London, O.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00

BIRCHEN GAME.

Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	\$2 00
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RED PYLE GAME.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00

BLACK GAME.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best hen.....	1 00
Julius Frank & Son.....	Akron, O.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00

BLACK BREASTED RED GAME BANTAM.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Chas. McClave.....	New London, O.....	3d best cock.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Chas. McClave.....	New London, O.....	2d best hen.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
L. G. Cary.....	Trimble, O.....	2d best pullet.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best pullet.....	50

BROWN RED GAME BANTAM.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best pullet.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best pullet.....	50

GOLDEN DUCKWING GAME BANTAM.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
M. M. Myers.....	Marysville, O.....	2d best pullet.....	1 00

SILVER DUCKWING GAME BANTAM.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00

BIRCHEN GAME BANTAM.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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BIRCHEN GAME BANTAM—Concluded.

S. G. Hoke & Son	Spring Grove, Pa.	Best hen	\$2 00
Hugh A. Rose	Welland, Ontario	2d best hen	1 00
Hugh A. Rose	Welland, Ontario	Best pullet	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best pullet	1 00
Julius Frank & Son	Akron, O.	3d best pullet	50

RED PYLE GAME BANTAM.

Hugh A. Rose	Welland, Ontario	Best cock	\$2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best cock	1 00
W. R. Reeves	Trimble, O.	3d best cock	50
Hugh A. Rose	Welland, Ontario	Best cockerel	2 00
L. G. Cary	Trimble, O.	2d best cockerel	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best cockerel	50
S. G. Hoke & Son	Spring Grove, Pa.	Best hen	2 00
Hugh A. Rose	Welland, Ontario	2d best hen	1 00
W. R. Reeves	Trimble, O.	3d best hen	50
Hugh A. Rose	Welland, Ontario	Best pullet	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best pullet	1 00
L. G. Cary	Trimble, O.	3d best pullet	50

WHITE GAME BANTAM.

Hugh A. Rose	Welland, Ontario	Best cock	\$2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best cock	1 00
Hugh A. Rose	Welland, Ontario	Best cockerel	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best cockerel	1 00
S. G. Hoke & Son	Spring Grove, Pa.	Best hen	2 00
Hugh A. Rose	Welland, Ontario	2d best hen	1 00
Hugh A. Rose	Welland, Ontario	Best pullet	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best pullet	1 00

BLACK GAME BANTAM.

Hugh A. Rose	Welland, Ontario	Best cock	\$2 00
Hugh A. Rose	Welland, Ontario	Best hen	2 00
Julius Frank & Son	Akron, O.	Best pullet	2 00

ORIENTAL CLASS

JUDGE, EUGENE SITES.

Premiums offered	\$70 00
Premiums paid	60 00
Entries	73

Name.	Postoffice.	Awards.	Amount.
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DARK CORNISH (INDIAN GAME).

C. C. Leitnaker	Basil, O.	Best cock	\$2 00
Hugh A. Rose	Welland, Ontario	2d best cock	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best cock	50
J. W. Lutz	27 Burton St., Dayton, Ohio	Best cockerel	2 00
Hugh A. Rose	Welland, Ontario	2d best cockerel	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best cockerel	50
Chas. McClave	New London, O.	Best hen	2 00
C. C. Leitnaker	Basil, O.	2d best hen	1 00
Hugh A. Rose	Welland, Ontario	3d best hen	50
Hugh A. Rose	Welland, Ontario	Best pullet	2 00
Chas. McClave	New London, O.	2d best pullet	1 00
J. W. Lutz	27 Burton St., Dayton, Ohio	3d best pullet	50

WHITE CORNISH (INDIAN GAME).

L. G. Cary	Trimble, O.	Best cock	\$2 00
L. G. Cary	Trimble, O.	2d best cock	1 00
Hugh A. Rose	Welland, Ontario	3d best cock	50
L. G. Cary	Trimble, O.	Best cockerel	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best cockerel	1 00
L. G. Cary	Trimble, O.	Best hen	2 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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WHITE CORNISH (INDIAN GAME)—Concluded.

Hugh A. Rose.....	Welland, Ontario.....	2d best hen.....	\$1 00
L. G. Cary.....	Trimble, O.....	3d best hen.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
L. G. Cary.....	Trimble, O.....	2d best pullet.....	1 00
L. G. Cary.....	Trimble, O.....	3d best pullet.....	50

WHITE LACED RED CORNISH (INDIAN GAME).

M. M. Myers.....	Marysville, O.....	Best cock.....	\$2 00
Julius Frank & Son.....	Akron, O.....	2d best cock.....	1 00
Julius Frank & Son.....	Akron, O.....	Best cockerel.....	2 00

BLACK SUMATRA.

Chas. McClave.....	New London, O.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Chas. McClave.....	New London, O.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best cockerel.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best hen.....	1 00
Chas. McClave.....	New London, O.....	3d best hen.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Chas. McClave.....	New London, O.....	2d best pullet.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best pullet.....	50

BLACK BREASTED RED MALAY.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
Julius Frank & Son.....	Akron, O.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best cockerel.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cockerel.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best hen.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best pullet.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best pullet.....	50

ORIENTAL BANTAM CLASS.

JUDGES, C. E. COE, EUGENE SITES.

Premiums offered.....	\$196 00
Premiums paid.....	182 50
Entries.....	211

Name.	Postoffice.	Awards.	Amount.
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GOLDEN SEBRIGHT BANTAM.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Devor Bros.....	Ashland, O.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Truman Baughman.....	Johnstown, O.....	2d best cockerel.....	1 00
Truman Baughman.....	Johnstown, O.....	3d best cockerel.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best hen.....	50
Truman Baughman.....	Johnstown, O.....	Best pullet.....	2 00
Truman Baughman.....	Johnstown, O.....	2d best pullet.....	1 00

SILVER SEBRIGHT BANTAM.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
Chas. McClave.....	New London, O.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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SILVER SEBRIGHT BANTAM—Concluded.

Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best hen.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best pullet.....	1 00

WHITE ROSE COMB BANTAM.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best cock.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best cock.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
Chas. McClave.....	New London, O.....	3d best cockerel.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
Chas. McClave.....	New London, O.....	2d best hen.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best hen.....	50
Chas. McClave.....	New London, O.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best pullet.....	50

BLACK ROSE COMB.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Chas. McClave.....	New London, O.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best cockerel.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
Chas. McClave.....	New London, O.....	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00
Chas. McClave.....	New London, O.....	3d best pullet.....	50

WHITE BOOTED BANTAM.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	3d best cockerel.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best hen.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best pullet.....	1 00

LIGHT BRAHMA BANTAM.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00

DARK BRAHMA BANTAM.

Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
Chas. McClave.....	New London, O.....	3d best cockerel.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best pullet.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best pullet.....	50

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
BUFF COCHIN BANTAM.			
Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
M. M. Myers.....	Marysville, O.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
E. E. Eddy.....	Trimble, O.....	3d best hen.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best pullet.....	1 00
PARTRIDGE COCHIN BANTAM.			
Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best pullet.....	1 00
WHITE COCHIN BANTAM.			
M. M. Myers.....	Marysville, O.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
Leonard Baker.....	Johnstown, O.....	3d best cockerel.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best hen.....	2 00
M. M. Myers.....	Marysville, O.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00
Leonard Baker.....	Johnstown, O.....	3d best pullet.....	50
BLACK COCHIN BANTAM.			
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cock.....	\$2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best cock.....	1 00
Chas. McClave.....	New London, O.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
M. M. Myers.....	Marysville, O.....	3d best hen.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best pullet.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best pullet.....	1 00
BLACK TAILED JAPANESE BANTAM.			
Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cock.....	1 00
Chas. McClave.....	New London, O.....	3d best cock.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best cockerel.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best pullet.....	50
BEARDED WHITE POLISH BANTAM.			
Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
Julius Frank & Son.....	Akron, O.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cock.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best cockerel.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best cockerel.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best cockerel.....	50
Julius Frank & Son.....	Akron, O.....	Best hen.....	2 00
Hugh A. Rose.....	Welland, Ontario.....	2d best hen.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best hen.....	50
Hugh A. Rose.....	Welland, Ontario.....	Best pullet.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best pullet.....	1 00
Julius Frank & Son.....	Akron, O.....	3d best pullet.....	50

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
BUFF LACED POLISH BANTAM.			
Hugh A. Rose.....	Welland, Ontario.....	Best cock.....	\$2 00
Julius Frank & Son.....	Akron, O.....	2d best cock.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best cock.....	50
Julius Frank & Son.....	Akron, O.....	Best cockerel.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best cockerel.....	1 00
Hugh A. Rose.....	Welland, Ontario.....	Best hen.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best hen.....	1 00
Julius Frank & Son.....	Akron, O.....	Best pullet.....	2 00
Julius Frank & Son.....	Akron, O.....	2d best pullet.....	1 00

TURKEYS.

JUDGE, C. E. COE.

Premiums offered.....	\$98 00
Premiums paid.....	52 50
Entries.....	33

Name.	Postoffice.	Awards.	Amount.
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BRONZE.

M. M. Myers.....	Marysville, O.....	Best cock.....	\$2 00
Chas. McClave.....	New London, O.....	2d best cock.....	1 00
Chas. McClave.....	New London, O.....	Best cockerel.....	2 00
M. M. Myers.....	Marysville, O.....	Best hen.....	2 00
Chas. McClave.....	New London, O.....	2d best hen.....	1 00
Chas. McClave.....	New London, O.....	Best pullet.....	2 00

NARRAGANSETT.

Chas. McClave.....	New London, O.....	Best cock.....	\$2 00
Chas. McClave.....	New London, O.....	Best hen.....	2 00

WHITE HOLLAND.

Julius Frank & Son.....	Akron, O.....	Best cock.....	\$2 00
M. M. Myers.....	Marysville, O.....	2d best cock.....	1 00
Julius Frank & Son.....	Akron, O.....	Best hen.....	2 00
M. M. Myers.....	Marysville, O.....	2d best hen.....	1 00

BLACK.

Chas. McClave.....	New London, O.....	Best cock.....	\$2 00
M. M. Myers.....	Marysville, O.....	2d best cock.....	1 00
M. M. Myers.....	Marysville, O.....	Best cockerel.....	2 00
M. M. Myers.....	Marysville, O.....	2d best cockerel.....	1 00
M. M. Myers.....	Marysville, O.....	Best hen.....	2 00
Chas. McClave.....	New London, O.....	2d best hen.....	1 00
M. M. Myers.....	Marysville, O.....	Best pullet.....	2 00
M. M. Myers.....	Marysville, O.....	2d best pullet.....	1 00

BUFF.

M. M. Myers.....	Marysville, O.....	Best cock.....	\$2 00
Chas. McClave.....	New London, O.....	2d best cock.....	1 00
Chas. McClave.....	New London, O.....	Best hen.....	2 00
M. M. Myers.....	Marysville, O.....	2d best hen.....	1 00

SLATE.

Chas. McClave.....	New London, O.....	Best cock.....	\$2 00
M. M. Myers.....	Marysville, O.....	2d best cock.....	1 00
M. M. Myers.....	Marysville, O.....	3d best cock.....	50
Chas. McClave.....	New London, O.....	Best cockerel.....	2 00
M. M. Myers.....	Marysville, O.....	Best hen.....	2 00
Chas. McClave.....	New London, O.....	2d best hen.....	1 00
Chas. McClave.....	New London, O.....	Best pullet.....	2 00

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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BOURBON RED.

Chas. McClave	New London, O.	Best cock	\$2 00
Chas. McClave	New London, O.	Best hen	2 00

DUCKS.

JUDGES, EUGENE SITES, C. E. COE.

Premiums offered	\$168 00
Premiums paid	163 50
Entries	222

Name.	Postoffice.	Awards.	Amount.
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WHITE PEKIN.

Chas. McClave	New London, O.	Best adult drake	\$2 00
L. G. Cary	Trimble, O.	2d best adult drake	1 00
C. C. Jackson	Centerburg, O.	3d best adult drake	50
Chas. McClave	New London, O.	Best young drake	2 00
M. M. Myers	Marysville, O.	2d best young drake	1 00
L. G. Cary	Trimble, O.	Best adult duck	2 00
Chas. McClave	New London, O.	2d best adult duck	1 00
C. C. Jackson	Centerburg, O.	3d best adult duck	50
Chas. McClave	New London, O.	Best young duck	2 00
M. M. Myers	Marysville, O.	2d best young duck	1 00

WHITE AYLESBURY.

Chas. McClave	New London, O.	Best adult drake	\$2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best adult drake	1 00
Chas. McClave	New London, O.	Best young drake	2 00
Chas. McClave	New London, O.	2d best young drake	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best young drake	50
Chas. McClave	New London, O.	Best adult duck	2 00
Chas. McClave	New London, O.	2d best adult duck	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best adult duck	50
Chas. McClave	New London, O.	Best young duck	2 00
Chas. McClave	New London, O.	2d best young duck	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best young duck	50

COLORED ROUEN.

Chas. McClave	New London, O.	Best adult drake	\$2 00
M. M. Myers	Marysville, O.	2d best adult drake	1 00
Julius Frank & Son	Akron, O.	3d best adult drake	50
Hugh A. Rose	Welland, Ontario	Best young drake	2 00
Edw. Davidson	Carey, O.	2d best young drake	1 00
M. M. Myers	Marysville, O.	3d best young drake	50
Chas. McClave	New London, O.	Best adult duck	2 00
Edw. Davidson	Carey, O.	2d best adult duck	1 00
Julius Frank & Son	Akron, O.	3d best adult duck	50
Hugh A. Rose	Welland, Ontario	Best young duck	2 00
M. M. Myers	Marysville, O.	2d best young duck	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best young duck	50

BLACK CAYUGA.

M. M. Myers	Marysville, O.	Best adult drake	\$2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best adult drake	1 00
M. M. Myers	Marysville, O.	Best young drake	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best young drake	1 00
M. M. Myers	Marysville, O.	Best adult duck	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best adult duck	1 00
M. M. Myers	Marysville, O.	Best young duck	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best young duck	1 00

GRAY CALL.

S. G. Hoke & Son	Spring Grove, Pa.	Best adult drake	\$2 00
Chas. McClave	New London, O.	2d best adult drake	1 00
Hugh A. Rose	Welland, Ontario	3d best adult drake	50

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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GRAY CALL—Concluded.

S. G. Hoke & Son	Spring Grove, Pa.	Best young drake	\$2 00
Chas. McClave	New London, O.	2d best young drake	1 00
Chas. McClave	New London, O.	Best adult duck	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best adult duck	1 00
M. M. Myers	Marysville, O.	3d best adult duck	50
S. G. Hoke & Son	Spring Grove, Pa.	Best young duck	2 00
Chas. McClave	New London, O.	2d best young duck	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best young duck	50

WHITE CALL.

Julius Frank & Son	Akron, O.	Best adult drake	\$2 00
Chas. McClave	New London, O.	2d best adult drake	1 00
M. M. Myers	Marysville, O.	3d best adult drake	50
Chas. McClave	New London, O.	Best young drake	2 00
Julius Frank & Son	Akron, O.	2d best young drake	1 00
Julius Frank & Son	Akron, O.	3d best young drake	50
M. M. Myers	Marysville, O.	Best adult duck	2 00
Julius Frank & Son	Akron, O.	2d best adult duck	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best adult duck	50
Julius Frank & Son	Akron, O.	Best young duck	2 00
Julius Frank & Son	Akron, O.	2d best young duck	1 00
Chas. McClave	New London, O.	3d best young duck	50

BLACK EAST INDIA.

Hugh A. Rose	Welland, Ontario	Best adult drake	\$2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best adult drake	1 00
M. M. Myers	Marysville, O.	3d best adult drake	50
M. M. Myers	Marysville, O.	Best young drake	2 00
Chas. McClave	New London, O.	2d best young drake	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best young drake	50
S. G. Hoke & Son	Spring Grove, Pa.	Best adult duck	2 00
Chas. McClave	New London, O.	2d best adult duck	1 00
Hugh A. Rose	Welland, Ontario	3d best adult duck	50
S. G. Hoke & Son	Spring Grove, Pa.	Best young duck	2 00
Chas. McClave	New London, O.	2d best young duck	1 00
M. M. Myers	Marysville, O.	3d best young duck	50

WHITE CRESTED.

Chas. McClave	New London, O.	Best adult drake	\$2 00
M. M. Myers	Marysville, O.	2d best adult drake	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best adult drake	50
Chas. McClave	New London, O.	Best young drake	2 00
M. M. Myers	Marysville, O.	2d best young drake	1 00
M. M. Myers	Marysville, O.	3d best young drake	50
S. G. Hoke & Son	Spring Grove, Pa.	Best adult duck	2 00
Chas. McClave	New London, O.	2d best adult duck	1 00
M. M. Myers	Marysville, O.	3d best adult duck	50
S. G. Hoke & Son	Spring Grove, Pa.	Best young duck	2 00
M. M. Myers	Marysville, O.	2d best young duck	1 00
Chas. McClave	New London, O.	3d best young duck	50

COLORED MUSCOVY.

M. M. Myers	Marysville, O.	Best adult drake	\$2 00
Chas. McClave	New London, O.	2d best adult drake	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best adult drake	50
Louis H. Perry	Clay, N. Y.	Best young drake	2 00
M. M. Myers	Marysville, O.	2d best young drake	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best young drake	50
Chas. McClave	New London, O.	Best adult duck	2 00
M. M. Myers	Marysville, O.	2d best adult duck	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best adult duck	50
M. M. Myers	Marysville, O.	Best young duck	2 00
Chas. McClave	New London, O.	2d best young duck	1 00
Louis H. Perry	Clay, N. Y.	3d best young duck	50

WHITE MUSCOVY.

M. M. Myers	Marysville, O.	Best adult drake	\$2 00
Chas. McClave	New London, O.	2d best adult drake	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best adult drake	50
S. G. Hoke & Son	Spring Grove, Pa.	Best young drake	2 00
Chas. McClave	New London, O.	2d best young drake	1 00
M. M. Myers	Marysville, O.	3d best young drake	50

POULTRY—Continued.

Name.	Postoffice.	Awards.	Amount.
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WHITE MUSCOVY—Concluded.

Chas. McClave.....	New London, O.....	Best adult duck.....	\$2 00
M. M. Myers.....	Marysville, O.....	2d best adult duck.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best adult duck.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best young duck.....	2 00
Chas. McClave.....	New London, O.....	2d best young duck.....	1 00
M. M. Myers.....	Marysville, O.....	3d best young duck.....	50

INDIAN RUNNER.

L. G. Cary.....	Trimble, O.....	Best adult drake.....	\$2 00
M. M. Myers.....	Marysville, O.....	2d best adult drake.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best adult drake.....	50
M. M. Myers.....	Marysville, O.....	Best young drake.....	2 00
Chas. McClave.....	New London, O.....	2d best young drake.....	1 00
L. G. Cary.....	Trimble, O.....	3d best young drake.....	50
Chas. McClave.....	New London, O.....	Best adult duck.....	2 00
Chas. McClave.....	New London, O.....	2d best adult duck.....	1 00
L. G. Cary.....	Trimble, O.....	3d best adult duck.....	50
M. M. Myers.....	Marysville, O.....	Best young duck.....	2 00
Chas. McClave.....	New London, O.....	2d best young duck.....	1 00
Chas. McClave.....	New London, O.....	3d best young duck.....	50

BLUE SWEDISH.

Chas. McClave.....	New London, O.....	Best adult drake.....	\$2 00
M. M. Myers.....	Marysville, O.....	2d best adult drake.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best adult drake.....	50
Chas. McClave.....	New London, O.....	Best young drake.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best young drake.....	1 00
M. M. Myers.....	Marysville, O.....	Best adult duck.....	2 00
Chas. McClave.....	New London, O.....	2d best adult duck.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best adult duck.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best young duck.....	2 00
M. M. Myers.....	Marysville, O.....	2d best young duck.....	1 00
Chas. McClave.....	New London, O.....	3d best young duck.....	50

GEESE.

JUDGES, EUGENE SITES, C. E. COE.

Premiums offered.....	\$98 00
Premiums paid.....	92 50

Entries.....82

Name.	Postoffice.	Awards.	Amount.
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GRAY TOULOUSE.

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best adult gander.....	\$2 00
Edw. Davidson.....	Carey, O.....	2d best adult gander.....	1 00
M. M. Myers.....	Marysville, O.....	3d best adult gander.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best young gander.....	2 00
Chas. McClave.....	New London, O.....	2d best young gander.....	1 00
M. M. Myers.....	Marysville, O.....	3d best young gander.....	50
M. M. Myers.....	Marysville, O.....	Best adult goose.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best adult goose.....	1 00
Edw. Davidson.....	Carey, O.....	3d best adult goose.....	50
S. G. Hoke & Son.....	Spring Grove, Pa.....	Best young goose.....	2 00
Chas. McClave.....	New London, O.....	2d best young goose.....	1 00
M. M. Myers.....	Marysville, O.....	3d best young goose.....	50

WHITE EMBDEN,

S. G. Hoke & Son.....	Spring Grove, Pa.....	Best adult gander.....	\$2 00
Truman Baughman.....	Johnstown, O.....	2d best adult gander.....	1 00
M. M. Myers.....	Marysville, O.....	3d best adult gander.....	50
M. M. Myers.....	Marysville, O.....	Best young gander.....	2 00
Chas. McClave.....	New London, O.....	2d best young gander.....	1 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	3d best young gander.....	50
Truman Baughman.....	Johnstown, O.....	Best adult goose.....	2 00
S. G. Hoke & Son.....	Spring Grove, Pa.....	2d best adult goose.....	1 00

POULTRY—Concluded.

Name.	Postoffice.	Awards.	Amount.
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WHITE EMBDEN—Concluded.

M. M. Myers	Marysville, O.	3d best adult goose	\$2 50
S. G. Hoke & Son	Spring Grove, Pa.	Best young goose	2 00
M. M. Myers	Marysville, O.	2d best young goose	1 00
Chas. McClave	New London, O.	3d best young goose	50

GRAY AFRICAN.

Chas. McClave	New London, O.	Best adult gander	\$2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best adult gander	1 00
M. M. Myers	Marysville, O.	3d best adult gander	50
S. G. Hoke & Son	Spring Grove, Pa.	Best young gander	2 00
Chas. McClave	New London, O.	2d best young gander	1 00
Chas. McClave	New London, O.	Best adult goose	2 00
Chas. McClave	New London, O.	2d best adult goose	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best adult goose	50
S. G. Hoke & Son	Spring Grove, Pa.	Best young goose	2 00
Chas. McClave	New London, O.	2d best young goose	1 00

BROWN CHINESE.

S. G. Hoke & Son	Spring Grove, Pa.	Best adult gander	\$2 00
M. M. Myers	Marysville, O.	2d best adult gander	1 00
M. M. Myers	Marysville, O.	3d best adult gander	50
M. M. Myers	Marysville, O.	Best young gander	2 00
S. G. Hoke & Son	Spring Grove, Pa.	2d best young gander	1 00
S. G. Hoke & Son	Spring Grove, Pa.	Best adult goose	2 00
M. M. Myers	Marysville, O.	2d best adult goose	1 00
M. M. Myers	Marysville, O.	3d best adult goose	50
Chas. McClave	New London, O.	Best young goose	2 00
M. M. Myers	Marysville, O.	2d best young goose	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best young goose	50

WHITE CHINESE.

M. M. Myers	Marysville, O.	Best adult gander	\$2 00
Chas. McClave	New London, O.	2d best adult gander	1 00
S. G. Hoke & Son	Spring Grove, Pa.	3d best adult gander	50
S. G. Hoke & Son	Spring Grove, Pa.	Best young gander	2 00
M. M. Myers	Marysville, O.	2d best young gander	1 00
Chas. McClave	New London, O.	3d best young gander	50
S. G. Hoke & Son	Spring Grove, Pa.	Best adult goose	2 00
M. M. Myers	Marysville, O.	2d best adult goose	1 00
Chas. McClave	New London, O.	3d best adult goose	50
S. G. Hoke & Son	Spring Grove, Pa.	Best young goose	2 00
M. M. Myers	Marysville, O.	2d best young goose	1 00
Chas. McClave	New London, O.	3d best young goose	50

GRAY CANADIAN (WILD).

S. G. Hoke & Son	Spring Grove, Pa.	Best adult agander	\$2 00
Chas. McClave	New London, O.	2d best adult gander	1 00
M. M. Myers	Marysville, O.	3d best adult gander	50
Chas. McClave	New London, O.	Best young gander	2 00
M. M. Myers	Marysville, O.	2d best young gander	1 00
Truman Baughman	Johnstown, O.	3d best young gander	50
S. G. Hoke & Son	Spring Grove, Pa.	Best adult goose	2 00
Chas. McClave	New London, O.	2d best adult goose	1 00
M. M. Myers	Marysville, O.	3d best adult goose	50
Chas. McClave	New London, O.	Best young goose	2 00
Truman Baughman	Johnstown, O.	2d best young goose	1 00
M. M. Myers	Marysville, O.	3d best young goose	50

COLORED EGYPTIAN.

Julius Frank & Son	Akron, O.	Best adult gander	\$2 00
Julius Frank & Son	Akron, O.	2d best adult gander	1 00
Julius Frank & Son	Akron, O.	Best young gander	2 00
Julius Frank & Son	Akron, O.	Best adult goose	2 00
Julius Frank & Son	Akron, O.	2d best adult goose	1 00
Julius Frank & Son	Akron, O.	Best young goose	2 00

SIXTH DEPARTMENT—FARM PRODUCTS.

W. G. FARNSWORTH, In Charge.

T. E. ADAMS.....Superintendent
H. F. FRICKE.....Clerk

JUDGES.

C. A. PATTON, T. A. WELTON, M. M. MIESSE, W. L. CLEVINGER,
CHARLES WEBER, E. D. WOLLAM.

Received from sale of floor space, 1913.....	\$208 60
Premiums offered, 1913.....	3,497 50
Premiums paid, 1913.....	3,188 00
Entries.....	2,404
Paid superintendents, judges, etc., 1913.....	\$243 35
Received from sale of floor space, 1912.....	\$356 30
Premiums offered, 1912.....	3,728 50
Premiums paid, 1912.....	3,502 50
Total Number of Entries, 1912.....	3,101
Paid superintendents, judges, etc., 1912.....	\$282 93
Received from sale of floor space, 1911.....	\$329 20
Premiums offered, 1911.....	3,396 50
Premiums paid, 1911.....	3,028 50
Total Number of Entries, 1911.....	3,333
Paid superintendents, judges, etc., 1911.....	\$254 90
Received from sale of floor space, 1910.....	\$176 95
Premiums offered, 1910.....	3,389 00
Premiums paid, 1910.....	3,020 00
Total Number of Entries, 1910.....	3,000
Paid superintendents, judges, etc., 1910.....	\$186 75

GRAINS, SEEDS, TOBACCO AND CEREAL MILL PRODUCTS.

JUDGES, C. A. PATTON, T. A. WELTON.

Premiums offered.....	\$255 00
Premiums paid.....	247 00
Entries.....	296

Name.	Postoffice.	Awards.	Amount.
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WHITE WHEAT.

J. L. Keckley.....	Marysville, O., R. R. 3	Best peck of any variety.....	\$5 00
I. B. Keckley.....	Marysville, O., R. R. 3	2d best peck of any variety.....	3 00
J. F. Purks.....	Newark, O.	3d best peck of any variety.....	2 00

RED WHEATS—SMOOTH.

I. B. Keckley.....	Marysville, O., R. R. 3	Best peck of Poole.....	\$3 00
J. L. Keckley.....	Marysville, O., R. R. 3	2d best peck of Poole.....	2 00
F. M. Whipps.....	Peoria, O.	3d best peck of Poole.....	1 00
W. D. Whipps.....	Marion, O.	Best peck of Fultz.....	3 00
F. M. Whipps.....	Peoria, O.	2d best peck of Fultz.....	2 00
A. H. Powell & Son.....	Newark, O.	3d best peck of Fultz.....	1 00

RED WHEATS—BEARDED.

J. L. Keckley.....	Marysville, O., R. R. 3	Best peck of Nigger.....	\$3 00
W. D. Whipps.....	Marion, O.	2d best peck of Nigger.....	2 00
Albert Pearce.....	Akron, O.	3d best peck of Nigger.....	1 00
F. M. Whipps.....	Peoria, O.	Best peck of Mediterranean.....	3 00
J. L. Keckley.....	Marysville, O., R. R. 3	3d best peck of Mediterranean.....	2 00
A. H. Powell & Son.....	Newark, O.	3d best peck of Mediterranean.....	1 00
W. D. Whipps.....	Marion, O.	Best display of Red Wheat (6 varieties).....	10 00
J. L. Keckley.....	Marysville, O., R. R. 3	2d best display of Red Wheat (6 varieties).....	5 00
A. H. Powell & Son.....	Newark, O.	3d best display of Red Wheat (6 varieties).....	3 00

FARM PRODUCTS—Continued.

Name.	Postoffice.	Awards.	Amount.
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OATS.

J. L. Keckley	Marysville, O., R. R. 3	Best peck of Black	\$5 00
A. H. Powell & Son	Newark, O.	2d best peck of Black	3 00
W. W. Bailey	Yellow Springs, O.	3d best peck of Black	2 00
W. D. Whipps	Marion, O.	Best peck of White	5 00
F. M. Whipps	Peoria, O.	2d best peck of White	3 00
Harvey Sneiderker	Coshocton, O., R. R. 5	3d best peck of white	2 00
W. W. Bailey	Yellow Springs, O.	Best display of 6 varieties	10 00
A. H. Powell & Son	Newark, O.	2d best display of 6 varieties	5 00
Harvey Sneiderker	Coshocton, O., R. R. 5	3d best display of 6 varieties	3 00

BARLEY, RYE, ETC.

I. B. Keckley	Marysville, O., R. R. 3	Best peck of White Winter Rye	\$3 00
J. L. Keckley	Marysville, O., R. R. 3	2d best peck of White Winter Rye	2 00
W. D. Whipps	Marion, O.	3d best peck of White Winter Rye	1 00
J. F. Parks	Newark, O.	Best peck of Black Winter Rye	3 00
T. A. Powell	Newark, O.	2d best peck of Black Winter Rye	2 00
J. L. Keckley	Marysville, O., R. R. 3	3d best peck of Black Winter Rye	1 00
J. L. Keckley	Marysville, O., R. R. 3	Best peck of Barley	3 00
T. A. Powell	Newark, O.	2d best peck of Barley	2 00
A. H. Powell & Son	Newark, O.	3d best peck of Barley	1 00
J. L. Keckley	Marysville, O., R. R. 3	Best peck of Buckwheat	3 00
I. B. Keckley	Marysville, O., R. R. 3	2 best peck of Buckwheat	2 00
A. H. Powell & Son	Newark, O.	3d best peck of Buckwheat	1 00
J. L. Keckley	Marysville, O., R. R. 3	Best peck of Common Flax Seed	3 00
I. B. Keckley	Marysville, O., R. R. 3	2d best peck of Common Flax Seed	2 00
Albert Pearce	Akron, O.	3d best peck of Common Flax Seed	1 00
W. D. Whipps	Marion, O.	Best peck of Canada Field Peas	3 00
J. L. Keckley	Marysville, O.	2d best peck of Canada Field Peas	2 00
F. M. Whipps	Peoria, O.	3d best peck of Canada Field Peas	1 00
J. L. Keckley	Marysville, O.	Best peck of Marrow Fat Field Peas	3 00
W. D. Whipps	Marion, O.	2d best peck of Marrow Fat Field Peas	2 00
F. M. Whipps	Peoria, O.	3d best peck of Marrow Fat Field Peas	1 00

GRASS SEEDS.

Albert Pearce	Akron, O.	Best peck of Timothy	\$3 00
W. W. Bailey	Yellow Springs, O.	2d best peck of Timothy	2 00
J. L. Keckley	Marysville, O.	3d best peck of Timothy	1 00
F. M. Whipps	Peoria, O.	Best peck of Kentucky Blue Grass	3 00
A. H. Powell & Son	Newark, O.	2d best peck of Kentucky Blue Grass	2 00
W. D. Whipps	Marion, O.	3d best peck of Kentucky Blue Grass	1 00
W. D. Whipps	Marion, O.	Best peck of Orchard Grass	3 00
F. M. Whipps	Peoria, O.	2d best peck of Orchard Grass	2 00
J. L. Keckley	Marysville, O.	3d best peck of Orchard Grass	1 00
I. B. Keckley	Marysville, O.	Best peck of Red Top	3 00
A. H. Powell & Son	Newark, O.	2d best peck of Red Top	2 00
J. L. Keckley	Marysville, O.	3d best peck of Red Top	1 00
J. L. Keckley	Marysville, O.	Best peck of Millet	3 00
W. D. Whipps	Peoria, O.	2d best peck of Millet	2 00
I. B. Keckley	Marysville, O.	3d best peck of Millet	1 00
J. L. Keckley	Marysville, O.	Best peck of Hungarian Grass	3 00
I. B. Keckley	Marysville, O.	2d best peck of Hungarian Grass	2 00
W. D. Whipps	Marion, O.	3d best peck of Hungarian Grass	1 00

CLOVER SEED.

J. L. Keckley	Marysville, O.	Best peck of Mammoth Red	\$3 00
F. M. Whipps	Peoria, O.	2d best peck of Mammoth Red	2 00
F. M. Whipps	Peoria, O.	Best peck of Common Red	3 00
J. L. Keckley	Marysville, O.	Best peck of Alsike	3 00
F. M. Whipps	Peoria, O.	2d best peck of Alsike	2 00
A. H. Powell & Son	Newark, O.	3d best peck of Alsike	1 00
J. L. Keckley	Marysville, O.	Best peck of Crimson	3 00
A. H. Powell	Newark, O.	Best peck of Alfalfa	3 00
F. M. Whipps	Peoria, O.	2d best peck of Alfalfa	2 00
A. H. Powell & Son	Newark, O.	Best peck of White	3 00
T. A. Powell	Newark, O.	2d best peck of White	2 00
F. M. Whipps	Peoria, O.	3d best peck of White	1 00
Elmer Husted	Husted, O.	Best display of Grasses	12 00
W. W. Bailey	Yellow Springs, O.	2d best display of Grasses	6 00
T. A. Powell	Newark, O.	3d best display of Grasses	3 00

TOBACCO.

J. L. Keckley	Marysville, O.	Best display 4 varieties 4 hands each	\$15 00
F. M. Whipps	Peoria, O.	2d best display 4 varieties 4 hands each	10 00
A. H. Powell & Son	Newark, O.	3d best display 4 varieties 4 hands each	5 00

CORN.

JUDGES, T. A. WELTON, C. A. PATTON.

Premiums offered.....		\$285 00
Premiums paid.....		284 00
Entries.....	380	

Name.	Postoffice.	Awards.	Amount.
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TOBACCO—Concluded.

A. H. Powell & Son.....	Newark, O.....	Best 10 ears Golden Surprise.....	\$4 00
G. W. Wildman.....	New Carlisle, O.....	2d best 10 ears Golden Surprise.....	3 00
J. Lawrence.....	Coshocton, O., R. R. 3.....	3d best 10 ears Golden Surprise.....	2 00
J. F. Purks.....	Newark, O.....	Best 10 ears Beauty.....	4 00
J. L. Keckley.....	Marysville, O.....	2d best 10 ears Beauty.....	3 00
A. H. Powell & Son.....	Newark, O.....	3d best 10 ears Beauty.....	2 00
G. W. Scott.....	Carroll, O.....	Best 10 ears Improved Leaning.....	4 00
J. H. Bell.....	Grove City, O.....	2d best 10 ears Improved Leaning.....	3 00
G. W. Wildman.....	New Carlisle, O.....	3d best 10 ears Improved Leaning.....	2 00
J. L. Keckley.....	Marysville, O.....	Best 10 ears Reid's Yellow Dent.....	4 00
C. S. Randolph.....	New Lexington, O.....	2d best 10 ears Reid's Yellow Dent.....	3 00
I. B. Keckley.....	Marysville, O.....	3d best 10 ears Reid's Yellow Dent.....	2 00
J. L. Keckley.....	Marysville, O.....	Best 10 ears Clamage.....	4 00
I. B. Keckley.....	Marysville, O.....	2d best 10 ears Clamage.....	3 00
J. H. Bell.....	Grove City, O.....	3d best 10 ears Clamage.....	2 00
J. L. Keckley.....	Marysville, O.....	Best 10 ears Gold Coin.....	4 00
A. H. Powell & Son.....	Newark, O.....	2d best 10 ears Gold Coin.....	3 00
G. W. Wildman.....	New Carlisle O.....	3d best 10 ears Gold Coin.....	2 00
J. H. Bell.....	Grove City, O.....	Best 10 ears any other variety.....	4 00
G. W. Scott.....	Carroll, O.....	2d best 10 ears any other variety.....	3 00
Robert Dun.....	Sabina, O., R. R. 3.....	3d best 10 ears any other variety.....	2 00

WHITE CORN.

J. L. Keckley.....	Marysville, O.....	Best 10 ears Boone County.....	\$4 00
I. B. Keckley.....	Marysville, O.....	2d best 10 ears Boone County.....	3 00
G. W. Wildman.....	New Carlisle, O.....	3d best 10 ears Boone County.....	2 00
I. B. Keckley.....	Marysville, O.....	Best 10 ears Silver Mine.....	4 00
A. H. Powell & Son.....	Newark, O.....	2d best 10 ears Silver Mine.....	3 00
J. L. Keckley.....	Marysville, O.....	3d best 10 ears Silver Mine.....	2 00
G. W. Wildman.....	New Carlisle, O.....	Best 10 ears White Cap.....	4 00
J. F. Purks.....	Newark, O.....	2d best 10 ears White Cap.....	3 00
J. L. Keckley.....	Marysville, O.....	3d best 10 ears White Cap.....	2 00
J. L. Keckley.....	Marysville, O.....	Best 10 ears of any variety.....	4 00
I. B. Keckley.....	Marysville, O.....	2d best 10 ears of any variety.....	3 00
J. M. Carson & Son.....	E. Monroe, O.....	3d best 10 ears of any variety.....	2 00

FLINT CORN.

G. W. Scott.....	Carroll, O.....	Best 10 ears White Flint.....	\$3 00
J. L. Keckley.....	Marysville, O.....	2d best 10 ears White Flint.....	2 00
T. A. Powell.....	Newark, O.....	3d best 10 ears White Flint.....	1 00
T. A. Powell.....	Newark, O.....	Best 10 ears Yellow Flint.....	3 00
G. W. Scott.....	Carroll, O.....	2d best 10 ears Yellow Flint.....	2 00
J. L. Keckley.....	Marysville, O.....	3d best 10 ears Yellow Flint.....	1 00

COLORED CORN.

I. B. Keckley.....	Marysville, O.....	Best 10 ears any variety.....	\$3 00
C. L. Freed.....	Newark, O.....	2d best 10 ears any variety.....	2 00
G. W. Wildman.....	New Carlisle, O.....	3d best 10 ears any variety.....	1 00

POP CORN.

H. Cecil Hite.....	Thurston, O.....	Best 10 ears White Pop Corn.....	\$2 50
J. L. Keckley.....	Marysville, O.....	2d best 10 ears White Pop Corn.....	1 50
G. W. Scott.....	Carroll, O.....	3d best 10 ears White Pop Corn.....	50
H. Cecil Hite.....	Thurston, O.....	Best 10 ears Red Pop Corn.....	2 50
Hilas Craig.....	Groveport, O.....	2d best 10 ears Red Pop Corn.....	1 50
A. H. Powell & Son.....	Newark, O.....	3d best 10 ears Red Pop Corn.....	50
Hilas Craig.....	Groveport, O.....	Best 10 ears Yellow Pop Corn.....	2 50
G. W. Scott.....	Carroll, O.....	2d best 10 ears Yellow Pop Corn.....	1 50
A. H. Powell & Son.....	Newark, O.....	3d best 10 ears Yellow Pop Corn.....	50

SWEET CORN.

Geo. Lee.....	Canal Winchester, O.....	Best 10 ears Early Sweet Corn of 1913.....	\$3 00
Albert Pearce.....	Akron, O.....	2d best 10 ears Early Sweet Corn of 1913.....	2 00
J. L. Keckley.....	Marysville, O.....	Best 10 ears Late Sweet Corn of 1912.....	3 00
A. H. Powell & Son.....	Newark, O.....	2d best 10 ears Late Sweet Corn of 1912.....	2 00
H. Cecile Hite.....	Thurston, O.....	3d best 10 ears Late Sweet Corn of 1912.....	1 00

FARM PRODUCTS—Continued.

Name.	Postoffice.	Awards.	Amount.
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DISPLAYS.

I. B. Keckley	Marysville, O.	Best display of 10 varieties Yellow Field Corn	\$10 00
A. H. Powell & Son	Newark, O.	2d best display of 10 varieties Yellow Field Corn	5 00
J. F. Purks	Newark, O.	3d best display of 10 varieties Yellow Field Corn	3 00
J. L. Keckley	Marysville, O.	Best display of 10 varieties White Field Corn	10 00
T. A. Powell	Newark, O.	2d best display of 10 varieties White Field Corn	5 00
A. H. Powell & Son	Newark, O.	3d best display of 10 varieties White Field Corn	3 00
W. W. Bailey	Yellow Springs, O.	Best display of 10 varieties Sweet Corn	8 00
T. A. Powell	Newark, O.	2d best display of 10 varieties Sweet Corn	4 00
W. D. Whipps	Marion, O.	3d best display of 10 varieties Sweet Corn	3 00
J. L. Keckley	Marysville, O.	Best display of Colored Field Corn, 10 ears of each variety	5 00
A. H. Powell & Son	Newark, O.	2d best display of Colored Field Corn, 10 ears of each variety	3 00
G. W. Wildman	New Carlisle, O.	3d best display of Colored Field Corn, 10 ears of each variety	2 00
W. W. Bailey	Yellow Springs, O.	Best display of Pop Corn, 10 ears of each variety	5 00
T. A. Powell	Newark, O.	2d best display of Pop Corn, 10 ears of each variety	3 00
J. F. Purks	Newark, O.	3d best display of Pop Corn, 10 ears of each variety	2 00
W. W. Bailey	Yellow Springs, O.	Best display Corn Stalk	15 00
Elmer Husted	Hustead, O.	2d best display Corn Stalk	10 00
J. F. Purks	Newark, O.	3d best display Corn Stalk	5 00
F. M. Whipps	Peoria, O.	Best 20 pounds Broom Corn	2 00
J. M. Carson & Son	East Monroe, O.	2d best 20 pounds Broom Corn	1 00
W. W. Bailey	Yellow Springs, O.	3d best 20 pounds Broom Corn	1 50
Mrs. Geo. Lee	Canal Winchester, O.	Best Corn Design	10 00
Elmer Husted	Hustead, O.	2d best Corn Design	5 00
G. W. Wildman	New Carlisle, O.	3d best Corn Design	3 00

SWEEPSTAKES.

J. L. Keckley	Marysville, O.	Best 10 ears Yellow Corn, any variety	\$5 00
J. L. Keckley	Marysville, O.	Best 10 ears White Corn, any variety	5 00
H. Cecil Hite	Thurston, O.	Best 10 ears Pop Corn, any variety	5 00
J. L. Keckley	Marysville, O.	Best Single Ear Corn, any variety	5 00

POTATOES AND ROOTS.

JUDGE, M. M. MIESSE.

Premiums offered	\$267 00
Premiums paid	199 00
Entries	777

Name.	Postoffice.	Awards.	Amount.
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POTATOES.

W. W. Bailey	Yellow Springs, O.	Best peck American Giant	\$2 00
Hilas Craig	Groveport, O.	2d best peck American Giant	1 00
W. D. Whipps	Maion, O.	3d best peck American Giant	50
Hilas Craig	Groveport, O.	Best peck Burpee's Early	2 00
J. F. Purks	Marion, O.	Best peck Early Ohio	2 00
Frank Biegle	Thornville, O.	2d best peck Early Ohio	1 00
Columbus Market Gardeners' Assn., per Frank Held	Bexley Station, R. F. D	3d best peck Early Ohio	50
J. F. Purks	Newark, O.	Best peck Early Michigan	2 00
Frank Biegle	Thornville, O.	Best peck Green Mountain	2 00
W. W. Bailey	Yellow Springs, O.	Best peck Irish Cobbler	2 00
J. F. Purks	Newark, O.	2d best peck Irish Cobbler	1 00
J. L. Keckley	Marysville, O.	3d best peck Irish Cobbler	50
Hilas Craig	Groveport, O.	Best peck Livingston	2 00
F. M. Whipps	Peoria, O.	Best peck Potentate	2 00
W. W. Bailey	Yellow Springs, O.	2d best peck Potentate	1 00
J. L. Keckley	Marysville, O.	3d best peck Potentate	50
F. M. Whipps	Peoria, O.	Best peck Rural New Yorker	2 00
Hilas Craig	Groveport, O.	Best peck Sensation	2 00
J. L. Keckley	Marysville, O.	Best peck of Red Seneca Beauty	2 00
Geo. Lee	Canal Winchester, O.	2d best peck of Red Seneca Beauty	1 00
Hilas Craig	Groveport, O.	3d best peck of Red Seneca Beauty	50
J. F. Purks	Newark, O.	Best peck Sir Walter Raleigh	2 00
Frank Biegle	Thornville, O.	Best peck Vermont Gold Coin	2 00
J. F. Purks	Newark, O.	Best peck Whiton's White Mammoth	2 00

FARM PRODUCTS—Continued.

Name.	Postoffice.	Awards.	Amount.
POTATOES—Concluded.			
J. F. Purks.....	Newark, O.....	Best display of 25 varieties of Irish Potatoes, one peck each correctly named and labeled.....	\$20 00
F. M. Whipps.....	Peoria, O.....	Best 1 peck of Yellow Sweet Potatoes.....	2 00
J. F. Purks.....	Newark, O.....	2d best peck of Yellow Sweet Potatoes.....	1 00
Hilas Craig.....	Groveport, O.....	3d best peck of Yellow Sweet Potatoes.....	50
Hilas Craig.....	Groveport, O.....	Best 1 peck Red Sweet Potatoes.....	2 00
Crystal Craig.....	Groveport, O.....	2d best peck Red Sweet Potatoes.....	1 00
Crystal Craig.....	Groveport, O.....	Best 1 peck White Sweet Potatoes.....	2 00
Hilas Craig.....	Groveport, O.....	Best 1 peck Red Yams.....	2 00
Crystal Craig.....	Groveport, O.....	2d best peck Red Yams.....	1 00
Hilas Craig.....	Groveport, O.....	Best 1 peck White Yams.....	2 00
Crystal Craig.....	Groveport, O.....	2d best peck White Yams.....	1 00
Hilas Craig.....	Groveport, O.....	Best display of 6 varieties of Sweet Potatoes and Yams, 1 peck each.....	4 00
Crystal Craig.....	Groveport, O.....	2d best display of 6 varieties of Sweet Potatoes and Yams, 1 peck each.....	2 00

ROOTS.

J. L. Keckley.....	Marysville, O.....	Best 12 Carrots, Chateny.....	\$2 00
Hilas Craig.....	Groveport, O.....	2d best 12 Carrots, Chateny.....	1 00
Columbus Market Gardeners' Assn., per Frank Held	Bexley Station, R. F. D	3d best 12 Carrots, Chateny.....	50
J. L. Keckley.....	Marysville, O.....	Best 12 Carrots, Long Orange.....	2 00
F. A. Powell.....	Newark, O.....	2d best 12 Carrots, Long Orange.....	1 00
A. H. Powell & Son.....	Newark, O.....	3d best 12 Carrots, Long Orange.....	50
J. L. Keckley.....	Marysville, O.....	Best 12 Carrots, Oxheart.....	2 00
Harvey Snedecker.....	Coshocton, O.....	2d best 12 Carrots, Oxheart.....	1 00
Albert Pearce.....	Akron, O.....	3d best 12 Carrots, Oxheart.....	50
J. L. Keckley.....	Marysville, O.....	Best 12 Carrots, White Belgian.....	2 00
Harvey Snedecker.....	Coshocton, O.....	2d best 12 Carrots, White Belgian.....	1 00
Albert Pearce.....	Akron, O.....	3d best 12 Carrots, White Belgian.....	50
Harvey Snedecker.....	Coshocton, O.....	Best 12 Carrots, Yellow Belgian.....	2 00
Albert Pearce.....	Akron, O.....	2d best 12 Carrots, Yellow Belgian.....	1 00
J. L. Keckley.....	Marysville, O.....	3d best 12 Carrots, Yellow Belgian.....	50
J. L. Keckley.....	Marysville, O.....	Best display of Carrots, 6 of each variety, 6 varieties	3 00
F. A. Powell.....	Newark, O.....	2d best display of Carrots, 6 of each variety, 6 varieties	2 00
Harvey Snedecker.....	Coshocton, O.....	3d best display of Carrots, 6 of each variety, 6 varieties	1 00
Columbus Market Gardeners' Assn., per Frank Held	Bexley Station, R. F. D	Best 12 Parsnips.....	2 00
G. W. Wildman.....	New Carlisle, O.....	2d best 12 Parsnips.....	1 00
F. A. Powell.....	Newark, O.....	3d best 12 Parsnips.....	50
J. L. Keckley.....	Marysville, O.....	Best 12 roots Salsify.....	2 00
Columbus Market Gardeners' Assn., per Frank Held	Bexley Station, O.....	2d best 12 roots Salsify.....	1 00
G. W. Wildman.....	New Carlisle, O.....	3d best 12 roots Salsify.....	50
I. B. Keckley.....	Marysville, O.....	Best 6 Beets, Eclipse.....	2 00
F. A. Powell.....	Newark, O.....	2d best 6 Beets, Eclipse.....	1 00
I. B. Keckley.....	Marysville, O.....	Best 6 Beets, Columbian.....	2 00
F. A. Powell.....	Newark, O.....	2d best 6 Beets, Columbian.....	1 00
F. A. Powell.....	Newark, O.....	Best 6 Beets, Crosby's Egyptian.....	2 00
I. B. Keckley.....	Marysville, O.....	2d best 6 Beets, Crosby's Egyptian.....	1 00
Columbus Market Gardeners' Assn., per Frank Held	Bexley Station, R. F. D	3d best 6 Beets, Crosby's Egyptian.....	50
F. A. Powell.....	Newark, O.....	Best 6 Beets, Dark Blood Turnip.....	2 00
I. B. Keckley.....	Marysville, O.....	2d best 6 Beets, Dark Blood Turnip.....	1 00
Hilas Craig.....	Groveport, O.....	3d best 6 Beets, Dark Blood Turnip.....	50
A. H. Powell & Son.....	Newark, O.....	Best 6 Beets, Long Blood.....	2 00
F. A. Powell.....	Newark, O.....	2d best 6 Beets, Long Blood.....	1 00
I. B. Keckley.....	Marysville, O.....	3d best 6 Beets, Long Blood.....	50
F. M. Whipps.....	Peoria, O.....	Best 6 Sugar Beets.....	2 00
I. B. Keckley.....	Marysville, O.....	2d best 6 Sugar Beets.....	1 00
Hilas Craig.....	Groveport, O.....	3d best 6 Sugar Beets.....	50
F. A. Powell.....	Newark, O.....	Best 3 Beets, Long Red, Mangel Wurzel.....	2 00
A. H. Powell & Son.....	Newark, O.....	2d best 3 Beets, Long Red, Mangel Wurzel.....	1 00
I. B. Keckley.....	Marysville, O.....	3d best 3 Beets, Long Red, Mangel Wurzel.....	50
F. A. Powell.....	Newark, O.....	Best 3 Beets, Long Yellow, Mangel Wurzel.....	2 00
I. B. Keckley.....	Marysville, O.....	2d best 3 Beets, Long Yellow, Mangel Wurzel.....	1 00
A. H. Powell & Son.....	Newark, O.....	3d best 3 Beets, Long Yellow, Mangel Wurzel.....	50
F. A. Powell.....	Newark, O.....	Best 3 Beets, Red Globe.....	2 00
I. B. Keckley.....	Marysville, O.....	2d best 3 Beets, Red Globe.....	1 00
F. A. Powell.....	Newark, O.....	3d best 3 Beets, Red Globe.....	50
A. H. Powell & Son.....	Newark, O.....	Best 3 Beets, Yellow Globe.....	2 00
W. W. Bailey.....	Yellow Springs, O.....	2d best 3 Beets, Yellow Globe.....	1 00
F. A. Powell.....	Newark, O.....	3d best 3 Beets, Yellow Globe.....	50
		Best display of Beets, 12 varieties for table use or stock feed, 3 of each variety.....	5 00

FARM PRODUCTS—Continued.

Name.	Postoffice.	Awards.	Amount.
ROOTS—Concluded.			
I. B. Keckley.....	Marysville, O.....	2d best display of Beets, 12 varieties for table use or stock feed, 3 of each variety.....	\$3 00
Ralph H. Bailey.....	Yellow Springs, O.....	3d best display of Beets, 12 varieties for table use or stock feed, 3 of each variety.....	2 00
Ralph H. Bailey.....	Yellow Springs, O.....	Best 6 Purple Kohlrabi.....	2 00
W. W. Bailey.....	Yellow Springs, O.....	2d best 6 Purple Kohlrabi.....	1 00
Geo. Lee.....	Canal Winchester, O.....	3d best 6 Purple Kohlrabi.....	.50
Ralph H. Bailey.....	Yellow Springs, O.....	Best 6 White Kohlrabi.....	2 00
W. W. Bailey.....	Yellow Springs, O.....	2d best 6 White Kohlrabi.....	1 00
Harvey Snedecker.....	Coshocton, O.....	3d best 6 White Kohlrabi.....	.50
G. W. Wildman.....	New Carlisle, O.....	Best 6 Rutabagas (white).....	2 00
Hilas Craig.....	Groveport, O.....	2d best 6 Rutabagas (white).....	1 00
Albert Pearce.....	Akron, O.....	3d best 6 Rutabagas (white).....	.50
Hilas Craig.....	Groveport, O.....	Best 6 Rutabagas (yellow).....	2 00
Harvey Snedecker.....	Coshocton, O.....	2d best 6 Rutabagas (yellow).....	1 00
G. W. Wildman.....	New Carlisle, O.....	3d best 6 Rutabagas (yellow).....	.50
Geo. Lee.....	Canal Winchester, O.....	Best 1 peck Turnips (Purple Top).....	2 00
Albert Pearce.....	Akron, O.....	2d best peck Turnips (Purple Top).....	1 00
F. M. Whipps.....	Peoria, O.....	3d best peck Turnips (Purple Top).....	.50
Geo. Lee.....	Canal Winchester, O.....	Best 1 peck Turnips (White Top).....	2 00
J. L. Keckley.....	Marysville, O.....	Best 1 peck Onions, Red Globe.....	2 00
I. B. Keckley.....	Marysville, O.....	2d best peck Onions, Red Globe.....	1 00
F. M. Whipps.....	Peoria, O.....	3d best peck Onions, Red Globe.....	.50
I. B. Keckley.....	Marysville, O.....	Best 1 peck Onions, White Globe.....	2 00
F. M. Whipps.....	Peoria, O.....	2d best peck Onions, White Globe.....	1 00
Columbus Market Garden- ers' Assn., per Frank Held	Bexley Sta., O.....	3d best peck Onions, White Globe.....	.50
I. B. Keckley.....	Marysville, O.....	Best 1 peck Onions, Yellow Globe, Danvers.....	2 00
J. L. Keckley.....	Marysville, O.....	2d best peck Onions, Yellow Globe, Danvers.....	1 00
F. M. Whipps.....	Peoria, O.....	3d best peck Onions, Yellow Globe, Danvers.....	.50
J. L. Keckley.....	Marysville, O.....	Best 1 peck Onions, Red Wethersfield.....	2 00
F. M. Whipps.....	Peoria, O.....	2d best peck Onions, Red Wethersfield.....	1 00
G. W. Wildman.....	New Carlisle, O.....	3d best peck Onions, Red Wethersfield.....	.50
W. W. Ferguson.....	Delaware, O.....	Best 1 peck Onions, Prizetaker.....	2 00
J. L. Keckley.....	Marysville, O.....	2d best 1 peck Onions, Prizetaker.....	1 00
I. B. Keckley.....	Marysville, O.....	3d best peck Onions, Prizetaker.....	.50
F. A. Powell.....	Newark, O.....	Best 1 peck Onions, Potato.....	2 00
F. M. Whipps.....	Peoria, O.....	2d best peck Onions, Potato.....	1 00
Geo. Lee.....	Canal Winchester, O.....	3d best peck Onions, Potato.....	.50
J. L. Keckley.....	Marysville, O.....	Best display of Onions, 10 varieties, 1 peck of each variety.....	5 00
F. A. Powell.....	Newark, O.....	2d best display of Onions, 10 varieties, 1 peck of each variety.....	3 00

FARM PRODUCTS—Continued.

VEGETABLES.

JUDGE, M. M. MIESSE.

Premiums offered.....		\$535 50
Premiums paid.....		454 00
Entries.....	898	

Name.	Postoffice.	Awards.	Amount.
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ONE PECK FOLLOWING VARIETY TOMATOES.

A. H. Powell	Newark, O.	Best peck Acme	\$3 00
Geo. Lee	Canal Winchester, O.	2d best peck Acme	2 00
J. F. Purks	Newark, O.	3d best peck Acme	1 00
A. H. Powell	Newark, O.	Best peck of Buckeye	3 00
J. F. Purks	Newark, O.	2d best peck Buckeye	2 00
A. H. Powell & Son	Newark, O.	Best peck Beauty	3 00
Columbus Market Gardeners' Assn., per Frank Held	Bexley Station, O.	2d best peck Beauty	2 00
Geo. Lee	Canal Winchester, O.	3d best peck Beauty	1 00
W. W. Bailey	Yellow Springs, O.	Best peck Corless	3 00
A. H. Powell & Son	Newark, O.	2d best peck Corless	2 00
J. F. Purks	Newark, O.	2d best peck Corless	1 00
J. F. Purks	Newark, O.	Best peck Dwarf	3 00
A. H. Powell & Son	Newark, O.	2d best peck Dwarf	2 00
A. H. Powell & Son	Newark, O.	Best peck Favorite	3 00
J. F. Purks	Newark, O.	2d best peck Favorite	2 00
J. F. Purks	Newark, O.	Best peck Golden Queen	3 00
W. W. Bailey	Yellow Springs, O.	2d best peck Golden Queen	2 00
A. H. Powell & Son	Newark, O.	3d best peck Golden Queen	1 00
Columbus Market Gardeners' Assn., per Frank Held	Bexley Station, O.	Best peck of New Globe	3 00
A. H. Powell & Son	Newark, O.	2d best peck of New Globe	2 00
T. A. Powell	Newark, O.	3d best peck of New Globe	1 00
W. W. Bailey	Yellow Springs, O.	Best peck of Ponderosa	3 00
A. H. Powell	Newark, O.	2d best peck of Ponderosa	2 00
J. F. Purks	Newark, O.	3d best peck of Ponderosa	1 00
T. A. Powell	Newark, O.	Best peck Stone	3 00
J. F. Purks	Newark, O.	2d best peck Stone	2 00
Columbus Market Gardeners' Assn., per Frank Held	Bexley Station, O.	3d best peck Stone	1 00
W. W. Bailey	Yellow Springs, O.	Best peck of Enormous	3 00
J. F. Purks	Newark, O.	2d best peck of Enormous	2 00
A. H. Powell & Son	Newark, O.	3d best peck of Enormous	1 00
A. H. Powell & Son	Newark, O.	Best peck Jewel	3 00
J. F. Purks	Newark, O.	2d best peck Jewel	2 00
J. F. Purks	Newark, O.	Best display Tomatoes, 10 varieties, half-peck each	10 00
A. H. Powell & Son	Newark, O.	2d best display Tomatoes, 10 varieties, half-peck each	6 00

CABBAGE.

W. W. Bailey	Yellow Springs, O.	Best 3 heads All Seasons	\$2 00
T. A. Powell	Newark, O.	2d best 3 heads All Seasons	1 00
F. M. Whipple	Peoria, O.	Best 3 heads Surehead	2 00
F. M. Whipple	Peoria, O.	Best 3 heads Flat Dutch	2 00
T. A. Powell	Newark, O.	2d best 3 heads Flat Dutch	1 00
A. H. Powell	Newark, O.	Best 3 heads Drumhead	2 00
J. F. Purks	Newark, O.	2d best 3 heads Drumhead	1 00
T. A. Powell	Newark, O.	Best 3 heads Red Dutch	2 00
J. F. Purks	Newark, O.	2d best 3 heads Red Dutch	1 00
F. M. Whipple	Peoria, O.	Best 3 heads WinninStadt	2 00
T. A. Powell	Newark, O.	2d best 3 heads WinninStadt	1 00
J. F. Purks	Newark, O.	3d best 3 heads WinninStadt	50
T. A. Powell	Newark, O.	Best 3 heads Danish Ball	2 00
Ralph H. Bailey	Yellow Springs, O.	2d best 3 heads Danish Ball	1 00
T. A. Powell	Newark, O.	Best heaviest head of cabbage in good condition	2 00

CELERY AND PEPPERS.

Albert Pearce	Akron, O.	Best 6 stalks of White Plume Celery	\$2 00
T. A. Powell	Newark, O.	Best 6 stalks of Golden Self Blanching Celery	2 00
Columbus Market Gardeners' Assn., per Frank Held	Bexley Station, O.	2d best 6 stalks of Golden Self Blanching Celery	1 00
Albert Pearce	Akron, O.	3d best 6 stalks of Golden Self Blanching Celery	50
A. H. Powell & Son	Newark, O.	Best 6 stalks of Giant Pascal Celery	2 00
Albert Pearce	Akron, O.	2d best 6 stalks of Giant Pascal Celery	1 00

FARM PRODUCTS—Continued.

Name.	Postoffice.	Awards.	Amount
CELERY AND PEPPERS—Concluded.			
Columbus Market Gardeners' Assn., per F. Held	Bexley Station, R. D.	3d best 6 stalks of Giant Pascal Celery	\$0 50
T. A. Powell	Newark, O.	Best Celery, 5 varieties, 6 stalks each	5 00
Albert Pearce	Akron, O.	2d best Celery, 5 varieties, 6 stalks each	3 00
J. F. Purks	Newark, O.	Best 12 largest Red Peppers	2 00
Frank Beigle	Thornville, O.	2d best 12 largest Red Peppers	1 00
W. W. Bailey	Yellow Springs, O.	3d best 12 largest Red Peppers	50
J. F. Purks	Newark, O.	Best 12 largest Yellow Peppers	2 00
T. A. Powell	Newark, O.	2d best 12 largest Yellow Peppers	1 00
W. W. Bailey	Yellow Springs, O.	3d best 12 largest Yellow Peppers	50
T. A. Powell	Newark, O.	Best display of Peppers on stalk	5 00
J. F. Purks	Newark, O.	2d best display of Peppers on Stalk	3 00
Columbus Market Gardeners' Assn., per F. Held	Bexley Station, O.	3d best display of Peppers on Stalk	2 00

SQUASHES.

W. D. Whipple	Marion, O.	Best 3 Boston Marrow	\$3 00
Columbus Market Gardeners' Assn., per F. Held	Bexley Station, O.	Best 3 Hubbard	3 00
J. F. Purks	Newark, O.	2d best 3 Hubbard	2 00
T. A. Powell	Newark, O.	3d best 3 Hubbard	1 00
T. A. Powell	Newark, O.	Best 3 Red Hubbard	3 00
J. F. Purks	Newark, O.	2d best 3 Red Hubbard	2 00
G. W. Wildman	New Carlisle, O.	Best 3 Yellow Crookneck	3 00
Columbus Market Gardeners' Assn., per F. Held	Bexley Station, O.	2d best 3 Yellow Crookneck	2 00
F. M. Whipple	Peoria, O.	3d best 3 Yellow Crookneck	1 00
F. M. Whipple	Peoria, O.	Best 3 Yellow Scallow	3 00
W. D. Whipple	Marion, O.	2d best 3 Yellow Scallow	2 00
Geo. Lee	Canal Winchester, O.	3d best 3 Yellow Scallow	1 00
J. F. Purks	Newark, O.	Best 3 Ford Hook	3 00
A. H. Powell & Son	Newark, O.	2d best 3 Ford Hook	2 00
F. M. Whipple	Peoria, O.	3d best 3 Ford Hook	1 00
Columbus Market Gardeners' Assn., per F. Held	Bexley Station, O.	Best 3 Marble Head	3 00
J. L. Keckley	Marysville, O.	2d best 3 Marble Head	2 00
J. F. Purks	Newark, O.	3d best 3 Marble Head	1 00
A. H. Powell & Son	Newark, O.	Best display of Gourds	3 00
J. F. Purks	Newark, O.	2d best display of Gourds	2 00
A. H. Powell & Son	Newark, O.	Best heaviest Squash or Stock Pumpkin	3 00
J. F. Purks	Newark, O.	2d best heaviest Squash or Stock Pumpkin	2 00
J. F. Purks	Newark, O.	Best display of Squashes and Pumpkins, 10 varieties, 3 of each variety	10 00
A. H. Powell & Son	Newark, O.	2d best display of Squashes and Pumpkins, 10 varieties, 3 of each variety	5 00
J. H. Bell	Grove City, O.	Best 3 Sweet or Pie Pumpkins	3 00
Columbus Market Gardeners' Assn., per F. Held	Bexley Station, O.	2d best 3 Sweet or Pie Pumpkins	2 00
J. F. Purks	Newark, O.	3d best 3 Sweet or Pie Pumpkins	1 00
J. F. Purks	Newark, O.	Best 3 heaviest Sweet Pumpkins	3 00
A. H. Powell & Son	Newark, O.	2d best 3 heaviest Sweet Pumpkins	2 00
Elmer Husted	Hustead, O.	3d best 3 heaviest Sweet Pumpkins	1 00

WATERMELONS.

Hilas Craig	Groveport, O.	Best 3 Black Diamond	\$3 00
J. F. Purks	Newark, O.	2d best 3 Black Diamond	2 00
J. F. Purks	Newark, O.	Best 3 Kolb's Gem	3 00
Hilas Craig	Groveport, O.	2d best 3 Kolb's Gem	2 00
Elmer Husted	Hustead, O.	Best 3 Ice Cream	3 00
J. F. Purks	Newark, O.	2d best 3 Ice Cream	2 00
Hilas Craig	Groveport, O.	3d best 3 Ice Cream	1 00
F. M. Whipple	Peoria, O.	Best 3 Sweet Heart	3 00
J. F. Purks	Newark, O.	2d best 3 Sweet Heart	2 00
Hilas Craig	Groveport, O.	3d best 3 Sweet Heart	1 00
Hilas Craig	Groveport, O.	Best 3 Phinney's Early	3 00
G. W. Wildman	New Carlisle, O.	2d best 3 Phinney's Early	2 00
J. F. Purks	Newark, O.	Best 3 Dark Icing	3 00
Elmer Husted	Hustead, O.	2d best 3 Dark Icing	2 00
J. L. Keckley	Marysville, O.	Best 3 Citron	3 00
Albert Pearce	Akron, O.	2d best 3 Citron	2 00
T. A. Powell	Newark, O.	3d best 3 Citron	1 00
F. M. Whipple	Peoria, O.	Best Heaviest Watermelon	3 00
W. W. Bailey	Yellow Springs, O.	2d best Heaviest Watermelon	2 00
Ralph H. Bailey	Yellow Springs, O.	3d best Heaviest Watermelon	1 00
J. F. Purks	Newark, O.	Best display of Watermelons, 10 varieties, 3 of each variety	12 00
Hilas Craig	Groveport, O.	2d best display of Watermelons, 10 varieties, 3 of each variety	8 00

FARM PRODUCTS—Continued.

Name.	Postoffice.	Awards.	Amount.
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MUSKMELONS.

A. H. Powell & Son	Newark, O.	Best 3 Osage	\$2 00
J. F. Purks	Newark, O.	2d best 3 Osage	1 00
Hilas Craig	Groveport, O.	3d best 3 Osage	50
W. W. Bailey	Yellow Springs, O.	Best 3 Bananas	2 00
Ralph Bailey	Yellow Springs, O.	2d best 3 Bananas	1 00
T. A. Powell	Newark, O.	3d best 3 Bananas	50
J. L. Keckley	Marysville, O.	Best 3 Tip Top	2 00
Columbus Market Gardeners' Assn., per F. Held	Bexley Station, O.	2d best 3 Tip Top	1 00
F. M. Whipps	Peoria, O.	3d best 3 Tip Top	50
G. W. Wildman	New Carlisle, O.	Best 3 Hackensack	2 00
T. A. Powell	Newark, O.	2d best 3 Hackensack	1 00
Hilas Craig	Groveport, O.	3d best 3 Hackensack	50
W. W. Bailey	Yellow Springs, O.	Best 3 Rocky Ford	2 00
W. W. Bailey	Yellow Springs, O.	Best 3 Emerald Gem	2 00
J. F. Purks	Newark, O.	2d best 3 Emerald Gem	1 00
G. W. Wildman	New Carlisle, O.	3d best 3 Emerald Gem	50
J. F. Purks	Newark, O.	Best display of Muskmelons, 10 varieties, 3 of each variety	10 00
Hilas Craig	Groveport, O.	2d best display of Muskmelons, 10 varieties, 3 of each variety	5 00

CUCUMBERS.

A. H. Powell & Son	Newark, O.	Best 12 Cucumbers, for market	\$2 00
G. W. Wildman	New Carlisle, O.	2d best 12 Cucumbers, for market	1 00
Columbus Market Gardeners' Assn., per F. Held	Bexley Station, O.	3d best 12 Cucumbers, for market	50
Columbus Market Gardeners' Assn., per F. Held	Bexley Station, O.	Best display of Cucumbers	3 00
T. A. Powell	Newark, O.	2d best display of Cucumbers	2 00
G. W. Wildman	New Carlisle, O.	3d best display of Cucumbers	1 00

EGG PLANT.

A. H. Powell & Son	Newark, O.	Best 3 Purple Egg Plants	\$2 00
F. M. Whipps	Peoria, O.	2d best 3 Purple Egg Plants	1 00
Albert Pearce	Akron, O.	3d best 3 Purple Egg Plants	50

BEANS.

Ralph Bailey	Yellow Springs, O.	Best 2 qts. Lima Beans	\$2 00
F. M. Whipps	Peoria, O.	2d best 2 qts. Lima Beans	1 00
H. Cecil Hite	Thurston, O.	3d best 2 qts. Lima Beans	50
Ralph H. Bailey	Yellow Springs, O.	Best 2 qts. Marrowfat Beans	2 00
J. F. Purks	Newark, O.	2d best 2 qts. Marrowfat Beans	1 00
W. D. Whipps	Marion, O.	3d best 2 qts. Marrowfat Beans	50
I. B. Keckley	Marysville, O.	Best 2 qts. Navy Beans	2 00
J. L. Keckley	Marysville, O.	2d best 2 qts. Navy Beans	1 00
W. D. Whipps	Marion, O.	Best 2 qts. Golden Wax Beans	2 00
Ralph H. Bailey	Yellow Springs, O.	2d best 2 qts. Golden Wax Beans	1 00
W. W. Bailey	Yellow Springs, O.	3d best 2 qts. Golden Wax Beans	50
T. A. Powell	Newark, O.	Best 2 qts. White Kidney Beans	00
J. F. Purks	Newark, O.	2d best 2 qts. White Kidney Beans	00
W. D. Whipps	Marion, O.	3d best 2 qts. White Kidney Beans	50
W. W. Bailey	Yellow Springs, O.	Best 2 qts. Red Kidney Beans	2 00
T. A. Powell	Newark, O.	2d best 2 qts. Red Kidney Beans	1 00
Ralph H. Bailey	Yellow Springs, O.	3d best 2 qts. Red Kidney Beans	50
Albert Pearce	Akron, O.	Best 2 qts. Red Valentine Beans	2 00
Ralph H. Bailey	Yellow Springs, O.	2d best 2 qts. Red Valentine Beans	1 00
J. L. Keckley	Marysville, O.	3d best 2 qts. Red Valentine Beans	50
J. F. Purks	Newark, O.	Best display of Dry Beans, 10 varieties, 2 qts. of each	4 00
T. A. Powell	Newark, O.	2d best display of Dry Beans, 10 varieties, 2 qts. of each	2 00
Albert Pearce	Akron, O.	3d best display of Dry Beans, 10 varieties, 2 qts. of each	1 00
Columbus Market Gardeners' Assn., per F. Held	Bexley Station, O.	Best display of Green Beans in pod, 10 varieties, 2 qts. of each variety	4 00
T. A. Powell	Newark, O.	2d best display of Green Beans in pod, 10 varieties, 2 qts. of each variety	2 00

BEST DISPLAY OF VEGETABLES TO INCLUDE ARTICLES NAMED IN BOOKS 53 AND 54, ETC.

Columbus Market Gardeners' Assn., per F. Held	Bexley Station, O.	Best display	\$40 00
T. A. Powell	Newark, O.	2d best display	30 00
W. W. Bailey	Yellow Springs, O.	3d best display	20 00

FARM PRODUCTS—Continued,
COUNTY EXHIBITS—FARM PRODUCTS.

JUDGES, M. M. MIESSE, T. A. WELTON, C. A. PATTON.

Premiums offered.....	\$1,850 00
Premiums paid.....	1,850 00
Entries.....	9

Name.	Postoffice.	Awards.	Amount.
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FARM PRODUCTS.

A. H. Powell & Son.....	Newark, O.....	Best representative exhibit of Farm Products.....	\$350 00
W. W. Bailey.....	Yellow Springs, O.....	2d best representative exhibit of Farm Products.....	300 00
J. L. Keckley.....	Marysville, O.....	3d best representative exhibit of Farm Products.....	250 00
Hilas Craig.....	Groveport, O.....	4th best representative exhibit of Farm Products.....	200 00
G. W. Wildman.....	New Carlisle, O.....	5th best representative exhibit of Farm Products.....	175 00
F. M. Whippis.....	Peoria, O.....	6th best representative exhibit of Farm Products.....	150 00
Albert Pearce.....	Akron, O.....	7th best representative exhibit of Farm Products.....	125 00
C. S. Rice.....	Spencer, O., R. R. 2.....	8th best representative exhibit of Farm Products.....	100 00

DAIRY PRODUCTS.

JUDGE, W. L. CLEVINGER.

Premiums offered.....	\$275 00
Premiums paid.....	225 00
Entries.....	20

Name.	Postoffice.	Awards.	Amount.
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HOME DAIRY BUTTER.

Mrs. T. G. Ruff.....	Lancaster, O.....	Best 10 pound package. Score: 92.....	\$12 00
Paul P. Larkin.....	S. Charleston, O.....	Best 10 pound package. Score: 91½.....	8 00
The Wheeler Homestead.....	Kanova, N. Y.....	Best 10 pound package. Score: 89.....	5 00
Mrs. T. G. Ruff.....	Lancaster, O.....	Best box 5 single pound prints. Score: 94.....	10 00
Mrs. Ethel M. Grossman.....	Grove City, O.....	Best box 5 single pound prints. Score: 90½.....	6 00
The Wheeler Homestead.....	Kanova, N. Y.....	Best box 5 single pound prints. Score: 89.....	4 00

CREAMERY BUTTER.

The West Jefferson Creamery Co.....	Columbus, O.....	Best 20 pounds Creamery Butter. Score: 94.....	\$50 00
J. W. Baumiller & Son.....	Nutwood, O.....	Best 20 pound Creamery Butter. Score: 93.....	30 00
C. M. McConnell.....	Woodstock, O.....	Best 20 pounds Creamery Butter. Score: 92½.....	20 00
The West Jefferson Creamery Co.....	Columbus, O.....	Best display of Creamery Butter.....	50 00

MILK AND CREAM FROM PRIVATE DAIRY HERD.

Sheffield Farm.....	Glendale, O.....	Best 2 quarts bottle milk.....	\$10 00
C. M. McConnell.....	Woodstock, O.....	2d best 2 quarts bottle milk.....	5 00
Sheffield Farm.....	Glendale, O.....	Best 2 pints cream, bottled.....	7 50
		Best 2 pints cream, bottled.....	7 50
Mrs. T. G. Ruff.....	Lancaster, O., even.....		

AGRICULTURAL REPORT.

FARM PRODUCTS—Concluded,
BEES AND HONEY.

JUDGE, CHAS. WEBER.

Premiums offered \$155 00
 Premiums paid 103 00
 Entries 14

Name.	Postoffice.	Awards.	Amount.
Jesse Goodrich.....	Powell, O.....	Best display of Comb Honey.....	\$15 00
W. H. Hiser.....	Powell, O.....	2d best display of Comb Honey.....	10 00
Jesse Goodrich.....	Powell, O.....	Best case of 24 sections. (White).....	4 00
W. H. Hiser.....	Powell, O.....	2d best case of 24 sections. (White).....	3 00
Jesse Goodrich.....	Powell, O.....	Best case of 24 sections Comb Honey from fall flowers.....	4 00
Jesse Goodrich.....	Powell, O.....	Best display of extracted honey.....	15 00
W. H. Hiser.....	Powell, O.....	2d best display of extracted honey.....	10 00
Jesse Goodrich.....	Powell, O.....	Best six 3 pound jars extracted honey.....	3 00
Jesse Goodrich.....	Powell, O.....	Best six jars extracted honey, 1½ pound size.....	2 00
Jesse Goodrich.....	Powell, O.....	Best display of candied honey not less than 25 pounds.....	5 00
Jesse Goodrich.....	Powell, O.....	Best display of beeswax.....	2 00
Jesse Goodrich.....	Powell, O.....	Largest display of honey, comb and extracted.....	20 00
W. H. Hiser.....	Powell, O.....	2d largest display of honey, comb and extracted.....	10 00

MAPLE PRODUCTS.

JUDGE, E. D. WOLLAM.

Premiums offered \$75 00
 Premiums paid 26 00
 Entries 10

Name.	Postoffice.	Awards.	Amount.
H. Cecil Hite.....	Thurston, O.....	Best gallon Maple Syrup.....	\$3 00
Jesse Goodrich.....	Powell, O.....	2d best gallon Maple Syrup.....	2 00
Frank Beigle.....	Thornville, O.....	3d best gallon Maple Syrup.....	1 00
Jesse Goodrich.....	Powell, O.....	Largest and best display from any county of state..	20 00

SEVENTH DEPARTMENT—HORTICULTURAL PRODUCTS.

W. G. FARNSWORTH, In Charge.

(F. H. STEVENS Superintendent

JUDGES.

C. E. BASSETT,

J. L. SCHILLER.

FRUITS.

Premiums offered, 1913.....	\$1,954 50
Premiums paid, 1913.....	1,742 00
Entries, 1913.....	1,542

PLANTS AND FLOWERS.

Premiums offered, 1913.....	\$932 00
Premiums paid, 1913.....	876 00
Entries, 1913.....	167
Paid Superintendent, judges, etc., 1913.....	\$204 75
Premiums offered, 1912.....	\$3,087 50
Premiums paid, 1912.....	2,893 50
Total Number of Entries, 1912.....	2,843
Paid superintendents, judges, etc., 1912.....	250 55
Premiums offered, 1911.....	\$2,687 50
Premiums paid, 1911.....	2,543 50
Total Number of Entries, 1911.....	2,796
Paid superintendent, judges, etc., 1911.....	\$168 00
Received from sale of floor space, 1910.....	\$18 15
Premiums offered, 1910.....	2,035 50
Premiums paid, 1910.....	1,526 00
Total Number of Entries, 1910.....	1,206
Paid superintendents, judges, etc., 1910.....	\$226 93

SUMMER, FALL AND WINTER APPLES.

JUDGE, C. E. BASSETT.

Premiums offered.....	\$310 00
Premiums paid.....	282 00
Entries.....	111

Name.	Postoffice.	Awards.	Amount.
Gill & Miller.....	Port Clinton, O.....	Best 3 varieties of summer for market, grown north of Columbus.....	\$3 00
The W. W. Farnsworth Co.....	Waterville, O.....	2d best 3 varieties of summer for market, grown north of Columbus.....	2 00
Fred. Hutchinson.....	Clyde, O.....	3d best 3 varieties of summer for market, grown north of Columbus.....	1 00
E. G. Cox.....	Proctorville, O.....	Best 3 varieties of summer for market, grown south of Columbus.....	3 00
J. L. Ropp.....	Canal Winchester, O.....	2d best 3 varieties of summer for market, grown south of Columbus.....	2 00
U. T. Cox.....	Proctorville, O.....	3d best 3 varieties of summer for market, grown south of Columbus.....	1 00
Gill & Miller.....	Port Clinton, O.....	Best 3 varieties of fall for market, grown north of Columbus.....	3 00
H. Burkholder.....	Clyde, O.....	2d best 3 varieties of fall for market, grown north of Columbus.....	2 00
J. T. Ropp.....	Canal Winchester, O.....	3d best 3 varieties of fall for market grown north of Columbus.....	1 00
U. T. Cox.....	Proctorville, O.....	Best 3 varieties of fall for market, grown south of Columbus.....	3 00
J. C. Hoffman.....	Lancaster, O.....	2d best 3 varieties of fall for market, grown south of Columbus.....	2 00
E. G. Cox.....	Proctorville, O.....	3d best 3 varieties of fall for market, grown south of Columbus.....	1 00
C. W. Counter.....	West Toledo, O., R. 7.....	Best 6 varieties of winter for market, grown north of Columbus.....	5 00

HORTICULTURAL PRODUCTS—Continued.
SUMMER, FALL AND WINTER APPLES—Concluded.

Name.	Postoffice.	Awards.	Amount.
H. Burkholder.....	Clyde, O.....	2d best 6 varieties of winter for market, grown north of Columbus.....	\$3 00
Fred. Hutchinson.....	Clyde, O.....	3d best 6 varieties of winter for market, grown north of Columbus.....	2 00
W. F. Cox.....	Proctorville, O.....	Best 6 varieties of winter for market, grown south of Columbus.....	5 00
E. G. Cox.....	Proctorville, O.....	2d best 6 varieties of winter for market, grown south of Columbus.....	3 00
J. L. Ropp.....	Canal Winchester, O.....	3d best 6 varieties of winter for market, grown south of Columbus.....	2 00
The W. W. Farnsworth Co.....	Waterville, O.....	Best collection of 12 varieties summer, fall and winter for market, grown north of Columbus.....	8 00
Fred. Hutchinson.....	Clyde, O.....	2d best collection of 12 varieties summer, fall and winter for market, grown north of Columbus.....	5 00
Gill & Miller.....	Port Clinton, O.....	3d best collection of 12 varieties summer, fall and winter for market, grown north of Columbus.....	3 00
U. T. Cox.....	Proctorville, O.....	Best collection of 12 varieties, summer, fall and winter for market, grown south of Columbus.....	8 00
E. G. Cox.....	Proctorville, O.....	2d best collection of 12 varieties, summer, fall and winter for market, grown south of Columbus.....	5 00
J. C. Hoffman.....	Lancaster, O.....	Best 1 variety of summer dessert.....	2 00
U. T. Cox.....	Proctorville, O.....	2d best 1 variety of summer dessert.....	1 00
U. T. Cox.....	Proctorville, O.....	Best variety of fall dessert.....	2 00
J. C. Hoffman.....	Lancaster, O.....	2d best variety of fall dessert.....	1 00
U. T. Cox.....	Proctorville, O.....	Best variety of winter dessert.....	2 00
H. Burkholder.....	Clyde, O.....	2d best variety of winter dessert.....	1 00
W. W. Farnsworth Co.....	Waterville, O.....	Best collection of 10 varieties, summer, fall and winter for home use, grown north of Columbus.....	8 00
Fred. Hutchinson.....	Clyde, O.....	2d best collection of 10 varieties, summer, fall and winter for home use, grown north of Columbus.....	5 00
Gill & Miller.....	Port Clinton, O.....	3d best collection of 10 varieties, summer, fall and winter for home use, grown north of Columbus.....	3 00
U. T. Cox.....	Proctorville, O.....	Best collection of 10 varieties, summer, fall and winter for home use, grown south of Columbus.....	8 00
E. G. Cox.....	Proctorville, O.....	2d best collection of 10 varieties, summer, fall and winter for home use, grown south of Columbus.....	5 00
J. C. Hoffman.....	Lancaster, O.....	Best 1 variety of fall, size and beauty rule.....	3 00
A. L. Maag.....	Hallsville, O.....	2d best 1 variety of fall, size and beauty rule.....	1 00
Fred. Hutchinson.....	Clyde, O.....	Best 1 variety of winter, size and beauty rule.....	2 00
W. H. Ortman.....	Hallsville, O.....	2d best 1 variety of winter, size and beauty rule.....	1 00
E. G. Cox.....	Proctorville, O.....	Best collection of 6 varieties, summer, fall and winter.....	6 00
U. T. Cox.....	Proctorville, O.....	2d best collection of 6 varieties, summer, fall and winter.....	4 00
The W. W. Farnsworth Co.....	Waterville, O.....	Best display of 25 varieties summer, fall and winter, grown north of Columbus, dessert, culinary and market qualities considered.....	20 00
Gill & Miller.....	Port Clinton, O.....	2d best display of 25 varieties, summer, fall and winter, grown north of Columbus, dessert, culinary and market qualities considered.....	15 00
Fred. Hutchinson.....	Clyde, O.....	3d best display of 25 varieties summer, fall and winter, grown north of Columbus, dessert, culinary and market qualities considered.....	10 00
U. T. Cox.....	Proctorville, O.....	Best display of 25 varieties, summer, fall and winter, grown south of Columbus, dessert, culinary and market qualities to be considered.....	20 00
E. G. Cox.....	Proctorville, O.....	2d best display of 25 varieties, summer, fall and winter, grown south of Columbus, dessert, culinary and market qualities to be considered.....	15 00
U. T. Cox.....	Proctorville, O.....	Best 1 bushel box of apples, fruit package and packing to be considered.....	5 00
U. T. Cox.....	Proctorville, O.....	Best display of 20 trays, size 11½ by 18 inch, 3 inch deep, not less than 5 varieties, and no more than 4 trays of any variety.....	25 00
The W. W. Farnsworth Co.....	Waterville, O.....	2d best display of 20 trays, size 11½ by 18 inch, 3 inch deep, not less than 5 varieties, and no more than 4 trays of any variety.....	20 00
C. W. Counter.....	W. Toledo, O., R. 7.....	3d best display of 20 trays, size 11½ by 18 inch, 3 inch deep, not less than 5 varieties, and no more than 4 trays of any variety.....	15 00
J. L. Ropp.....	Canal Winchester, O.....	4th best display of 20 trays, size 11½ by 18 inch, 3 inch deep, not less than 5 varieties, and no more than 4 trays of any variety.....	10 00

HORTICULTURAL PRODUCTS—Continued.

PLATE APPLES.

JUDGE, C. F. BASSETT.

Premiums offered.....\$600 50
 Premiums paid.....582 00
 Entries.....623

SUMMER AND FALL.

Name.	Postoffice.	Awards.	Amount.
The W. W. Farnsworth Co.	Waterville, O.	Best Alexander	\$2 00
U. T. Cox	Proctorville, O.	2d best Alexander	1 50
J. C. Hoffman	Lancaster, O.	Best Benoni	2 00
J. L. Ropp	Canal Winchester, O.	2d best Benoni	1 50
U. T. Cox	Proctorville, O.	3d best Benoni	1 00
A. L. Maag	Hallsville, O.	4th best Benoni	50
The W. W. Farnsworth Co.	Waterville, O.	Best Cayuga Red Streak	2 00
Gill & Miller	Port Clinton, O.	2d best Cayuga Red Streak	1 50
Fred Hutchinson	Clyde, O.	3d best Cayuga Red Streak	1 00
Mabel Hutchinson	Clyde, O.	4th best Cayuga Red Streak	50
J. C. Hoffman	Lancaster, O.	Best Chenango Strawberry	2 00
A. L. Maag	Hallsville, O.	2d best Chenango Strawberry	1 50
W. H. Ortman	Hallsville, O.	3d best Chenango Strawberry	1 00
U. T. Cox	Proctorville, O.	4th best Chenango Strawberry	50
C. W. Counter	W. Toledo, O., R. 7	Best Dutchess	2 00
A. L. Maag	Hallsville, O.	2d best Dutchess	1 50
Gill & Miller	Port Clinton, O.	3d best Dutchess	1 00
J. L. Ropp	Canal Winchester, O.	4th best Dutchess	50
C. W. Counter	W. Toledo, O., R. 7	Best Fall Pippin	2 00
The W. W. Farnsworth Co.	Waterville, O.	2d best Fall Pippin	1 50
Fred Hutchinson	Clyde, O.	3d best Fall Pippin	1 00
Mabel Hutchinson	Clyde, O.	4th best Fall Pippin	50
Gill & Miller	Port Clinton, O.	Best Fanny	2 00
J. C. Hoffman	Lancaster, O.	Best Jeffries	2 00
The W. W. Farnsworth Co.	Waterville, O.	2d best Jeffries	1 50
C. W. Counter	W. Toledo, O., R. 7	3d best Jeffries	1 00
The W. W. Farnsworth Co.	Waterville, O.	Best Gravenstein	2 00
Gill & Miller	Port Clinton, O.	2d best Gravenstein	1 50
J. C. Hoffman	Lancaster, O.	Best Lowell	2 00
The W. W. Farnsworth Co.	Waterville, O.	2d best Lowell	1 50
Fred Hutchinson	Clyde, O.	3d best Lowell	1 00
J. C. Hoffman	Lancaster, O.	Best Maiden Blush	2 00
H. Burkholder	Clyde, O.	2d best Maiden Blush	1 50
Fred Hutchinson	Clyde, O.	3d best Maiden Blush	1 00
Gill & Miller	Port Clinton, O.	4th best Maiden Blush	50
The W. W. Farnsworth Co.	Waterville, O.	Best Ohio Nonpareil	2 00
C. W. Counter	W. Toledo, O., R. 7	2d best Ohio Nonpareil	1 50
Mabel Hutchinson	Clyde, O.	Best Porter	2 00
The W. W. Farnsworth Co.	Waterville, O.	2d best Porter	1 50
Gill & Miller	Port Clinton, O.	3d best Porter	1 00
Mabel Hutchinson	Clyde, O.	4th best Porter	50
Fred Hutchinson	Clyde, O.	Best Red Astrachen	2 00
Gill & Miller	Port Clinton, O.	2d best Red Astrachen	1 50
H. Burkholder	Clyde, O.	3d best Red Astrachen	1 00
Gill & Miller	Port Clinton, O.	4th best Red Astrachen	50
Fred Hutchinson	Clyde, O.	Best Sweet Bough	2 00
Fred Hutchinson	Clyde, O.	2d best Sweet Bough	1 50
Mabel Hutchinson	Clyde, O.	Best Wealthy	2 00
The W. W. Farnsworth Co.	Waterville, O.	2d best Wealthy	1 50
C. W. Counter	W. Toledo, O., R. 7	3d best Wealthy	1 00
Fred Hutchinson	Clyde, O.	Best Yellow Transparent	2 00
U. T. Cox	Proctorville, O.	2d best Yellow Transparent	1 50
		3d best Yellow Transparent	1 00

WINTER PLATE APPLES.

Name.	Postoffice.	Awards.	Amount.
The W. W. Farnsworth Co.	Waterville, O.	Best Bailey Sweet	\$2 00
C. W. Counter	W. Toledo, O., R. 7	2d best Bailey Sweet	1 50
Gill & Miller	Port Clinton, O.	Best Baltimore	2 00
Fred Hutchinson	Clyde, O.	2d best Baltimore	1 50
H. Burkholder	Clyde, O.	Best Banana	2 00
The W. W. Farnsworth Co.	Waterville, O.	2d best Banana	1 50
J. C. Hoffman	Lancaster, O.	Best Baldwin	2 00
H. Burkholder	Clyde, O.	2d best Baldwin	1 50
U. T. Cox	Proctorville, O.	3d best Baldwin	1 00
Gill & Miller	Port Clinton, O.	4th best Baldwin	50

HORTICULTURAL PRODUCTS—Continued.

WINTER PLATE APPLES—Continued.

Name.	Postoffice.	Awards.	Amount.
Fred. Hutchinson.....	Clyde, O.....	Best Ben Davis.....	\$2 00
E. G. Cox.....	Proctorville, O.....	2d best Ben Davis.....	1 50
U. T. Cox.....	Proctorville, O.....	3d best Ben Davis.....	1 00
H. Burkholder.....	Clyde, O.....	4th best Ben Davis.....	50
Mabel Hutchinson.....	Clyde, O.....	Best Dominie.....	2 00
Fred. Hutchinson.....	Clyde, O.....	2d best Dominie.....	1 50
E. G. Cox.....	Proctorville, O.....	Best Ensee.....	2 00
U. T. Cox.....	Proctorville, O.....	2d best Ensee.....	1 50
Gill & Miller.....	Port Clinton, O.....	Best Fallawater.....	2 00
Fred. Hutchinson.....	Clyde, O.....	2d best Fallawater.....	1 50
H. Burkholder.....	Clyde, O.....	Best Fameuse.....	2 00
The W. W. Farnsworth Co.....	Waterville, O.....	2d best Fameuse.....	1 50
J. C. Hoffman.....	Lancaster, O.....	3d best Fameuse.....	1 00
U. T. Cox.....	Proctorville, O.....	4th best Fameuse.....	50
Fred. Hutchinson.....	Clyde, O.....	Best Gano.....	2 00
U. T. Cox.....	Proctorville, O.....	2d best Gano.....	1 50
J. L. Ropp.....	Canal Winchester, O.....	3d best Gano.....	1 00
The W. W. Farnsworth Co.....	Waterville, O.....	Best Greenville.....	2 00
C. W. Counter.....	W. Toledo, O., R. 7.....	2d best Greenville.....	1 50
E. G. Cox.....	Proctorville, O.....	Best Grimes' Golden.....	2 00
U. T. Cox.....	Proctorville, O.....	2d best Grimes' Golden.....	1 50
The W. W. Farnsworth Co.....	Waterville, O.....	3d best Grimes' Golden.....	1 00
Fred. Hutchinson.....	Clyde, O.....	4th best Grimes' Golden.....	50
The W. W. Farnsworth Co.....	Waterville, O.....	Best Hendricks' Sweet.....	2 00
C. W. Counter.....	W. Toledo, O., R. 7.....	2d best Hendricks' Sweet.....	1 50
Gill & Miller.....	Port Clinton, O.....	Best Hubbardson.....	2 00
The W. W. Farnsworth Co.....	Waterville, O.....	2d best Hubbardson.....	1 50
U. T. Cox.....	Proctorville, O.....	Best Jonathan.....	2 00
E. G. Cox.....	Proctorville, O.....	2d best Jonathan.....	1 50
The W. W. Farnsworth Co.....	Waterville, O.....	3d best Jonathan.....	1 00
Fred. Hutchinson.....	Clyde, O.....	4th best Jonathan.....	50
Gill & Miller.....	Port Clinton, O.....	Best King David.....	2 00
E. G. Cox.....	Proctorville, O.....	2d best King David.....	1 50
U. T. Cox.....	Proctorville, O.....	Best King (Tompkins Co.).....	2 00
The W. W. Farnsworth Co.....	Waterville, O.....	2d best King (Tompkins Co.).....	1 50
Gill & Miller.....	Port Clinton, O.....	3d best King (Tompkins Co.).....	1 00
Fred. Hutchinson.....	Clyde, O.....	4th best King (Tompkins Co.).....	50
Fred. Hutchinson.....	Clyde, O.....	Best Mann.....	2 00
H. Burkholder.....	Clyde, O.....	2d best Mann.....	1 50
C. W. Counter.....	W. Toledo, O., R. 7.....	3d best Mann.....	1 00
The W. W. Farnsworth Co.....	Waterville, O.....	4th best Mann.....	50
The W. W. Farnsworth Co.....	Waterville, O.....	Best McIntosh.....	2 00
C. W. Counter.....	W. Toledo, O., R. 7.....	2d best McIntosh.....	1 50
Gill & Miller.....	Port Clinton, O.....	3d best McIntosh.....	1 00
J. C. Hoffman.....	Lancaster, O.....	Best Northern Spy.....	2 00
The W. W. Farnsworth Co.....	Waterville, O.....	2d best Northern Spy.....	1 50
Ketner Farms.....	Baltimore, O.....	3d best Northern Spy.....	1 00
Fred. Hutchinson.....	Clyde, O.....	4th best Northern Spy.....	50
J. C. Hoffman.....	Lancaster, O.....	Best Paradise Winter Sweet.....	2 00
J. L. Ropp.....	Canal Winchester, O.....	2d best Paradise Winter Sweet.....	1 50
The W. W. Farnsworth Co.....	Waterville, O.....	3d best Paradise Winter Sweet.....	1 00
Gill & Miller.....	Port Clinton, O.....	Best Peck's Pleasant.....	2 00
J. C. Hoffman.....	Lancaster, O.....	2d best Peck's Pleasant.....	1 50
The W. W. Farnsworth Co.....	Waterville, O.....	3d best Peck's Pleasant.....	1 00
C. W. Counter.....	W. Toledo, O., R. 7.....	4th best Peck's Pleasant.....	50
U. T. Cox.....	Proctorville, O.....	Best Rambo.....	2 00
J. C. Hoffman.....	Lancaster, O.....	2d best Rambo.....	1 50
E. G. Cox.....	Proctorville, O.....	3d best Rambo.....	1 00
C. W. Counter.....	W. Toledo, O., R. 7.....	4th Best Rambo.....	50
U. T. Cox.....	Proctorville, O.....	Best Raules Janet.....	2 00
E. G. Cox.....	Proctorville, O.....	2d best Raules Janet.....	1 50
The W. W. Farnsworth Co.....	Waterville, O.....	Best Red Canada.....	2 00
Gill & Miller.....	Port Clinton, O.....	2d best Red Canada.....	1 50
C. W. Counter.....	West Toledo, O., R. 7.....	3d best Red Canada.....	1 00
The W. W. Farnsworth Co.....	Waterville, O.....	Best Rhode Island Greening.....	2 00
Fred. Hutchinson.....	Clyde, O.....	2d best Rhode Island Greening.....	1 50
H. Burkholder.....	Clyde, O.....	3d best Rhode Island Greening.....	1 00
Mabel Hutchinson.....	Clyde, O.....	4th best Rhode Island Greening.....	50
U. T. Cox.....	Proctorville, O.....	Best Rome Beauty.....	2 00
E. G. Cox.....	Proctorville, O.....	2d best Rome Beauty.....	1 50
J. C. Hoffman.....	Lancaster, O.....	3d best Rome Beauty.....	1 00
A. L. Maag.....	Hallsville, O.....	Best Smith's Cider.....	2 00
U. T. Cox.....	Proctorville, O.....	2d best Smith's Cider.....	1 50
J. C. Hoffman.....	Lancaster, O.....	3d best Smith's Cider.....	1 00
J. C. Hoffman.....	Lancaster, O.....	Best Salome.....	2 00
U. T. Cox.....	Proctorville, O.....	2d best Salome.....	1 50
Fred. Hutchinson.....	Clyde, O.....	3d best Salome.....	1 00
The W. W. Farnsworth Co.....	Waterville, O.....	4th best Salome.....	50
H. Burkholder.....	Clyde, O.....	Best Seek-No-Further.....	2 00
J. C. Hoffman.....	Lancaster, O.....	2d best Seek-No-Further.....	1 50
The W. W. Farnsworth Co.....	Waterville, O.....	3d best Seek-No-Further.....	1 00

HORTICULTURAL PRODUCTS—Continued.

WINTER PLATE APPLES—Concluded.

Name.	Postoffice.	Awards.	Amount.
C. W. Counter	West Toledo, O., R. 7	4th best Seek-No-Further	\$0 50
Gill & Miller	Port Clinton, O.	Best Spitzenburg Esopus	2 00
J. C. Hoffman	Lancaster, O.	2d best Spitzenburg Esopus	1 50
Fred. Hutchinson	Clyde, O.	3d Spitzenburg Esopus	1 00
J. C. Hoffman	Lancaster, O.	Best Smoke House	2 00
The W. W. Farnsworth Co.	Waterville, O.	2d best Smoke House	1 50
C. W. Counter	West Toledo, O., R. 7	3d best Smoke House	1 00
The W. W. Farnsworth Co.	Waterville, O.	Best Stark	2 00
C. W. Counter	West Toledo, O., R. 7	2d best Stark	1 50
Fred. Hutchinson	Clyde, O.	3d best Stark	1 00
Mabel Hutchinson	Clyde, O.	4th best Stark	50
E. G. Cox	Proctorville, O.	Best Stayman's Winesap	2 00
J. C. Hoffman	Lancaster, O.	2d best Stayman's Winesap	1 50
C. W. Counter	West Toledo, O., R. 7	3d best Stayman's Winesap	1 00
The W. W. Farnsworth Co.	Waterville, O.	Best Sutton Beauty	2 00
C. W. Counter	West Toledo, O., R. 7	2d best Sutton Beauty	1 50
Mabel Hutchinson	Clyde, O.	Best Talman Sweet	2 00
Fred. Hutchinson	Clyde, O.	2d best Talman Sweet	1 50
Gill & Miller	Port Clinton, O.	3d best Talman Sweet	1 00
H. Burkholder	Clyde, O.	4th best Talman Sweet	50
U. T. Cox	Proctorville, O.	Best Wagener	2 00
E. G. Cox	Proctorville, O.	2d best Wagener	1 50
The W. W. Farnsworth Co.	Waterville, O.	3d best Wagener	1 00
J. L. Ropp	Canal Winchester, O.	4th best Wagener	50
Mabel Hutchinson	Clyde, O.	Best White Pippin	2 00
H. Burkholder	Clyde, O.	2d best White Pippin	1 50
J. C. Hoffman	Lancaster, O.	3d best White Pippin	1 00
Gill & Miller	Port Clinton, O.	4th best White Pippin	50
Ketner Farms	Baltimore, O.	Best Willow Twig	2 00
U. T. Cox	Proctorville, O.	Best Wine Sap	2 00
Ketner Farms	Baltimore, O.	2d best Wine Sap	1 50
E. G. Cox	Proctorville, O.	3d best Wine Sap	1 00
J. L. Ropp	Canal Winchester, O.	4th best Wine Sap	50
Fred. Hutchinson	Clyde, O.	Best Wolf River	2 00
Mabel Hutchinson	Clyde, O.	2d best Wolf River	1 50
E. G. Cox	Proctorville, O.	3d best Wolf River	1 00
U. T. Cox	Proctorville, O.	4th best Wolf River	50
C. W. Counter	West Toledo, O., R. 7	Best York Imperial	2 00
The W. W. Farnsworth Co.	Waterville, O.	2d best York Imperial	1 50
H. Burkholder	Clyde, O.	3d best York Imperial	1 00
Fred. Hutchinson	Clyde, O.	4th best York Imperial	50

APPLES IN SINGLE TRAYS—SUMMER AND FALL.

Name.	Postoffice.	Awards.	Amount.
The W. W. Farnsworth Co.	Waterville, O.	Best Duchess of Oldenburg	\$5 00
J. L. Ropp	Canal Winchester, O.	2d best Duchess of Oldenburg	3 00
J. C. Hoffman	Lancaster, O.	Best Chenango Strawberry	5 00
The W. W. Farnsworth Co.	Waterville, O.	2d best Chenango Strawberry	3 00
J. C. Hoffman	Lancaster, O.	Best Maiden Blush	5 00
U. T. Cox	Proctorville, O.	2d best Maiden Blush	3 00
H. Burkholder	Clyde, O.	3d best Maiden Blush	2 00
U. T. Cox	Port Clinton, O.	Best Wealthy	5 00
The W. W. Farnsworth Co.	Waterville, O.	2d best Wealthy	3 00
Gill & Miller	Port Clinton, O.	Best any other variety	5 00
J. C. Hoffman	Lancaster, O.	2d best any other variety	3 00

WINTER.

Name.	Postoffice.	Awards.	Amount.
The W. W. Farnsworth Co.	Waterville, O.	Best Baldwin	\$5 00
U. T. Cox	Proctorville, O.	2d best Baldwin	3 00
H. Burkholder	Clyde, O.	3d best Baldwin	2 00
Fred. Hutchinson	Clyde, O.	Best Ben Davis	5 00
U. T. Cox	Proctorville, O.	2d best Ben Davis	3 00
J. L. Ropp	Canal Winchester, O.	3d best Ben Davis	2 00
U. T. Cox	Proctorville, O.	Best Grimes' Golden	5 00
The W. W. Farnsworth Co.	Waterville, O.	2d best Grimes' Golden	3 00

HORTICULTURAL PRODUCTS—Continued.

APPLES IN SINGLE TRAYS—WINTER—Concluded.

Name.	Postoffice.	Awards.	Amount.
Fred. Hutchinson.....	Clyde, O.....	3d best Grimes' Golden.....	\$2 00
U. T. Cox.....	Proctorville, O.....	Best Jonathan.....	5 00
The W. W. Farnsworth Co.....	Waterville, O.....	2d best Jonathan.....	3 00
Fred. Hutchinson.....	Clyde, O.....	3d best Jonathan.....	2 00
J. L. Ropp.....	Canal Winchester, O.....	4th best Jonathan.....	1 00
Gill & Miller.....	Port Clinton, O.....	Best Northern Spy.....	5 00
Fred. Hutchinson.....	Clyde, O.....	2d best Northern Spy.....	3 00
Mabel Hutchinson.....	Clyde, O.....	3d best Northern Spy.....	2 00
U. T. Cox.....	Proctorville, O.....	Best Rome Beauty.....	5 00
E. G. Cox.....	Proctorville, O.....	2d best Rome Beauty.....	3 00
Mabel Hutchinson.....	Clyde, O.....	Best Rhode Island Greening.....	5 00
H. Burkholder.....	Clyde, O.....	2d best Rhode Island Greening.....	3 00
Fred. Hutchinson.....	Clyde, O.....	3d best Rhode Island Greening.....	2 00
U. T. Cox.....	Proctorville, O.....	Best Rambo.....	5 00
Mabel Hutchinson.....	Clyde, O.....	2d best Rambo.....	3 00
Fred. Hutchinson.....	Clyde, O.....	3d best Rambo.....	2 00
J. L. Ropp.....	Canal Winchester, O.....	4th best Rambo.....	1 00
U. T. Cox.....	Proctorville, O.....	Best any other variety.....	5 00
H. Burkholder.....	Clyde, O.....	2d best any other variety.....	3 00
Fred. Hutchinson.....	Clyde, O.....	3d best any other variety.....	2 00
H. Burkholder.....	Clyde, O.....	4th best any other variety.....	1 00

CRAB APPLES.

Name.	Postoffice.	Awards.	Amount.
Fred. Hutchinson.....	Clyde, O.....	Best Transcendant.....	\$1 50
Mabel Hutchinson.....	Clyde, O.....	2d best Transcendant.....	1 00
Fred. Hutchinson.....	Clyde, O.....	Best Whitney's 20.....	1 50
Mabel Hutchinson.....	Clyde, O.....	2d best Whitney's 20.....	1 00
Fred. Hutchinson.....	Clyde, O.....	Best Hyslop.....	1 50
Mabel Hutchinson.....	Clyde, O.....	2d best Hyslop.....	1 00
Fred. Hutchinson.....	Clyde, O.....	Best display of 5 varieties.....	3 00
U. T. Cox.....	Proctorville, O.....	Best general fruit display.....	60 00
Gill & Johnson.....	Port Clinton, O.....	2d best general fruit display.....	50 00
The W. W. Farnsworth Co.....	Waterville, O.....	3d best general fruit display.....	40 00
C. W. Counter.....	West Toledo, O., R. 7..	4th best general fruit display.....	30 00

PEACHES, QUINCES and PLUMS.

JUDGE, C. E. BASSETT.

Premiums offered.....	\$341 00
Premiums paid.....	287 00
Entries.....	468

PEACHES.

Name.	Postoffice.	Awards.	Amount.
C. W. Counter.....	West Toledo, O., R. 7..	Best 5 varieties, dessert and culinary qualities considered.....	\$5 00
Wm. Miller.....	Port Clinton, O.....	2d best 5 varieties, dessert and culinary qualities considered.....	3 00
H. Burkholder.....	Clyde, O.....	3d best 5 varieties, dessert and culinary qualities considered.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	Best 5 varieties, market quality to be considered.....	5 00
R. A. Gill.....	Port Clinton, O.....	2d best 5 varieties, market quality to be considered.....	3 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	3d best 5 varieties, market quality to be considered.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	Best collection of 8 varieties, dessert, culinary and market qualities to be considered.....	7 00
Wm. Miller.....	Clyde, O.....	2d best collection of 8 varieties, dessert, culinary and market qualities to be considered.....	5 00
R. A. Gill.....	Port Clinton, O.....	3d best collection of 8 varieties, dessert, culinary and market qualities to be considered.....	3 00

HORTICULTURAL PRODUCTS—Continued.

PEACHES—Continued.

Name.	Postoffice.	Awards.	Amount.
		Plate of each of the following varieties:	
C. W. Counter	West Toledo, O., R. 7	Best Banner	\$2 00
H. Burkholder	Clyde, O.	2d best Banner	1 50
The W. W. Farnsworth Co.	Waterville, O.	3d best Banner	1 00
Mrs. T. S. Johnson	Port Clinton, O.	4th best Banner	50
H. Burkholder	Clyde, O.	Best Beer's Smock	2 00
C. W. Counter	West Toledo, O., R. 7	2d best Beer's Smock	1 50
Fred Hutchinson	Clyde, O.	3d best Beer's Smock	1 00
Mabel Hutchinson	Clyde, O.	4th best Beer's Smock	50
C. W. Counter	West Toledo, O., R. 7	Best Belle of Georgia	2 00
The W. W. Farnsworth Co.	Waterville, O.	2d best Belle of Georgia	1 50
Wm. Miller	Port Clinton, O.	3d best Belle of Georgia	1 00
R. A. Gill	Port Clinton, O.	4th best Belle of Georgia	50
R. A. Gill	Port Clinton, O.	Best Briner	2 00
Wm. Miller	Port Clinton, O.	2d best Briner	1 50
Mrs. T. S. Johnson	Port Clinton, O.	3d best Briner	1 00
C. W. Counter	West Toledo, O., R. 7	4th best Briner	50
C. W. Counter	West Toledo, O., R. 7	Best Chair's Choice	2 00
The W. W. Farnsworth Co.	Waterville, O.	2d best Chair's Choice	1 50
C. W. Counter	West Toledo, O., R. 7	Best Carman	1 00
Mrs. T. J. S. Johnson	Port Clinton, O.	2d best Carman	1 50
R. A. Gill	Port Clinton, O.	3d best Carman	1 00
H. Burkholder	Clyde, O.	4th best Carman	50
H. Burkholder	Clyde, O.	Best Champion	2 00
Wm. Miller	Port Clinton, O.	2d best Champion	1 50
R. A. Gill	Port Clinton, O.	3d best Champion	1 00
Wm. Miller	Port Clinton, O.	4th best Champion	50
Mrs. T. S. Johnson	Port Clinton, O.	Best Captain Ede	2 00
R. A. Gill	Port Clinton, O.	2d best Captain Ede	1 50
Mrs. T. S. Johnson	Port Clinton, O.	Best Crawford's Early	2 00
C. W. Counter	West Toledo, O., R. 7	2d best Crawford's Early	1 50
The W. W. Farnsworth Co.	Waterville, O.	3d best Crawford's Early	1 00
J. L. Ropp	Canal Winchester, O.	4th best Crawford's Early	50
Fred Hutchinson	Clyde, O.	Best Crosby	2 00
C. W. Counter	West Toledo, O., R. 7	2d best Crosby	1 50
The W. W. Farnsworth Co.	Waterville, O.	Best Early Toledo	2 00
C. W. Counter	West Toledo, O., R. 7	2d best Early Toledo	1 50
R. A. Gill	Port Clinton, O.	Best Elberta	1 00
Mrs. T. S. Johnson	Port Clinton, O.	2d best Elberta	1 50
Wm. Miller	Port Clinton, O.	3d best Elberta	1 00
U. T. Cox	Proctorville, O.	4th best Elberta	50
C. W. Counter	West Toledo, O., R. 7	Best Engle's Mammoth	2 00
The W. W. Farnsworth Co.	Waterville, O.	2d best Engle's Mammoth	1 50
The W. W. Farnsworth Co.	Waterville, O.	Best Foster	2 00
C. W. Counter	West Toledo, O., R. 7	2d best Foster	1 50
The W. W. Farnsworth Co.	Waterville, O.	Best Fitzgerald	2 00
C. W. Counter	West Toledo, O., R. 7	2d best Fitzgerald	1 50
R. A. Gill	Port Clinton, O.	Best Gold Drop	2 00
H. Burkholder	Clyde, O.	2d best Gold Drop	1 50
Mabel Hutchinson	Clyde, O.	3d best Gold Drop	1 00
The W. W. Farnsworth Co.	Waterville, O.	Best Graves	2 00
R. A. Gill	Port Clinton, O.	2d best Graves	1 50
Wm. Miller	Port Clinton, O.	3d best Graves	1 00
C. W. Counter	West Toledo, O., R. 7	4th best Graves	50
Fred Hutchinson	Clyde, O.	Best Kalamazoo	2 00
Wm. Miller	Port Clinton, O.	2d best Kalamazoo	1 50
C. W. Counter	West Toledo, O., R. 7	3d best Kalamazoo	1 00
The W. W. Farnsworth Co.	Waterville, O.	4th best Kalamazoo	50
R. A. Gill	Port Clinton, O.	Best Lemon Tree	2 00
Mrs. T. S. Johnson	Port Clinton, O.	2d best Lemon Tree	1 50
The W. W. Farnsworth Co.	Waterville, O.	Best Matthews	2 00
C. W. Counter	West Toledo, O., R. 7	2d best Matthews	1 50
Mrs. T. S. Johnson	Port Clinton, O.	3d best Matthews	1 00
Mrs. T. S. Johnson	Port Clinton, O.	Best Mountain Rose	2 00
R. A. Gill	Port Clinton, O.	2d best Mountain Rose	1 50
Wm. Miller	Port Clinton, O.	3d best Mountain Rose	1 00
C. W. Counter	Port Clinton, O.	Best New Prolific	2 00
H. Burkholder	Clyde, O.	2d best New Prolific	1 50
Fred Hutchinson	Clyde, O.	3d best New Prolific	1 00
The W. W. Farnsworth Co.	Waterville, O.	4th best New Prolific	50
Wm. Miller	Port Clinton, O.	Best Niagara	2 00
R. A. Gill	Port Clinton, O.	2d best Niagara	1 50
The W. W. Farnsworth Co.	Waterville, O.	3d best Niagara	1 00
C. W. Counter	West Toledo, O., R. 7	4th best Niagara	50
Mrs. T. S. Johnson	Port Clinton, O.	Best Orange	2 00
R. A. Gill	Port Clinton, O.	2d best Orange	1 50
H. Burkholder	Clyde, O.	Best old Mixon Free	2 00
Mrs. T. S. Johnson	Port Clinton, O.	2d best old Mixon Free	1 50
R. A. Gill	Port Clinton, O.	3d best old Mixon Free	1 00

HORTICULTURAL PRODUCTS—Continued.

PEACHES—Concluded.

Name.	Postoffice.	Awards.	Amount.
R. A. Gill.....	Port Clinton, O.....	Best Reeves' Favorite.....	\$2 00
Mrs. F. S. Johnson.....	Port Clinton, O.....	2d best Reeves' Favorite.....	1 50
C. W. Counter.....	West Toledo, O., R. 7.....	3d best Reeves' Favorite.....	1 00
The W. W. Farnsworth Co.....	Waterville, O.....	4th best Reeves' Favorite.....	50
Fred Hutchinson.....	Clyde, O.....	Best Smock Free.....	2 00
Mabel Hutchinson.....	Clyde, O.....	2d best Smock Free.....	1 50
The W. W. Farnsworth Co.....	Waterville, O.....	Best Stephens.....	2 00
C. W. Counter.....	West Toledo, O., R. 7.....	2d best Stephens.....	1 50
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Stump.....	2 00
C. W. Counter.....	West Toledo, O., R. 7.....	2d best Stump.....	1 50
R. A. Gill.....	Port Clinton, O.....	3d best Stump.....	1 00
W. T. Cox.....	Proctorville, O.....	4th best Stump.....	50
R. A. Gill.....	Port Clinton, O.....	Best St. John.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best St. John.....	1 50
Wm. Miller.....	Port Clinton, O.....	3d best St. John.....	1 00
R. A. Gill.....	Port Clinton, O.....	Best Stearns.....	2 00
Single Trays, 11½ by 18 inch, 3 inch deep of following varieties:			
Fred Hutchinson.....	Port Clinton, O.....	Best Champion.....	4 00
R. A. Gill.....	Port Clinton, O.....	2d best Champion.....	3 00
U. T. Cox.....	Proctorville, O.....	Best Elberta.....	4 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best Elberta.....	3 00
R. A. Gill.....	Port Clinton, O.....	3d best Elberta.....	2 00
C. W. Counter.....	West Toledo, O., R. 7.....	Best New Prolific.....	4 00
H. Burkholder.....	Clyde, O.....	2d best New Prolific.....	3 00
Fred Hutchinson.....	Clyde, O.....	3d best New Prolific.....	2 00
The W. W. Farnsworth Co.....	Waterville, O.....	4th best New Prolific.....	1 00

QUINCES.

Name.	Postoffice.	Awards.	Amount.
Plate of 6 Specimens of each of the following varieties:			
W. H. Ortman.....	Hallsville, O.....	Best Meech.....	\$1 50
Harry Bookwalter.....	Hallsville, O.....	2d best Meech.....	1 00
W. H. Ortman.....	Hallsville, O.....	Best Rea's Mammoth.....	1 50
E. G. Cox.....	Proctorville, O.....	2d best Rea's Mammoth.....	1 00
Harry Bookwalter.....	Hallsville, O.....	3d best Rea's Mammoth.....	50
U. T. Cox.....	Proctorville, O.....	Best Orange.....	1 50
W. H. Ortman.....	Hallsville, O.....	2d best Orange.....	1 00
Harry Bookwalter.....	Hallsville, O.....	3d best Orange.....	50
U. T. Cox.....	Proctorville, O.....	Best tray of Quinces.....	1 50
Harry Bookwalter.....	Hallsville, O.....	2d best tray of Quinces.....	1 00

PLUMS.

Name.	Postoffice.	Awards.	Amount.
U. T. Cox.....	Proctorville, O.....	Best 5 varieties, dessert and culinary qualities to be considered.....	\$5 00
The W. W. Farnsworth Co.....	Waterville, O.....	2d best 5 varieties, dessert and culinary qualities to be considered.....	3 00
U. T. Cox.....	Proctorville, O.....	Best 5 varieties, market quality to be considered.....	5 00
The W. W. Farnsworth Co.....	Waterville, O.....	2d best 5 varieties, market quality to be considered.....	3 00
E. G. Cox.....	Proctorville, O.....	3d best 5 varieties, market quality to be considered.....	2 00
The W. W. Farnsworth Co.....	Waterville, O.....	Best collection 10 varieties, dessert, culinary and market qualities to be considered.....	8 00
U. T. Cox.....	Proctorville, O.....	2d best collection 10 varieties, dessert, culinary and market qualities to be considered.....	5 00
H. Burkholder.....	Clyde, O.....	3d best collection 10 varieties, dessert, culinary and market qualities to be considered.....	3 00

HORTICULTURAL PRODUCTS—Continued.

PLUMS—Concluded.

Name,	Postoffice,	Awards,	Amount,
Plate of each of the following varieties:			
U. T. Cox.....	Proctorville, O.....	Best Arch Duke.....	\$2 00
E. G. Cox.....	Proctorville, O.....	2d best Arch Duke.....	1 00
C. W. Counter.....	West Toledo, O., R. 7..	Best Bradshaw.....	2 00
H. Burkholder.....	Clyde, O.....	2d best Bradshaw.....	1 00
R. A. Gill.....	Port Clinton, O.....	Best Coe's Golden Drops.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best Coe's Golden Drops.....	1 00
U. T. Cox.....	Proctorville, O.....	Best Fellenburg.....	2 00
The W. W. Farnsworth Co.	Waterville, O.....	2d best Fellenburg.....	1 00
J. L. Ropp.....	Canal Winchester, O.....	Best French Damson.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best French Damson.....	1 00
The W. W. Farnsworth Co.	Waterville, O.....	Best Grand Duke.....	2 00
U. T. Cox.....	Proctorville, O.....	2d best Grand Duke.....	1 00
The W. W. Farnsworth Co.	Waterville, O.....	Best Genii.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best Genii.....	1 00
The W. W. Farnsworth Co.	Waterville, O.....	Best German Prune.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best German Prune.....	1 00
H. Burkholder.....	Clyde, O.....	Best Lombard.....	2 00
Fred. Hutchinson.....	Clyde, O.....	2d best Lombard.....	1 00
Mabel Hutchinson.....	Clyde, O.....	Best Monarch.....	2 00
Fred. Hutchinson.....	Clyde, O.....	2d best Monarch.....	1 00
The W. W. Farnsworth Co.	Waterville, O.....	Best Moore's Arctic.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best Moore's Arctic.....	1 00
U. T. Cox.....	Proctorville, O.....	Best Pond's Seedling.....	2 00
E. G. Cox.....	Proctorville, O.....	2d best Pond's Seedling.....	1 00
H. Burkholder.....	Clyde, O.....	Best Reine Claude.....	2 00
U. T. Cox.....	Proctorville, O.....	2d best Reine Claude.....	1 00
The W. W. Farnsworth Co.	Waterville, O.....	Best Shropshire.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best Shropshire.....	1 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Union Purple.....	2 00
R. A. Gill.....	Port Clinton, O.....	2d best Union Purple.....	1 00
The W. W. Farnsworth Co.	Waterville, O.....	Best Yellow Egg.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best Yellow Egg.....	1 00

PEARS.

JUDGE, C. E. BASSETT.

Premiums offered.....	\$193 00
Premiums paid.....	182 00
Entries.....	208

Name.	Postoffice.	Awards.	Amount.
C. W. Counter.....	West Toledo, O., R. 7..	Best 3 varieties Summer.....	\$3 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best 3 varieties Summer.....	2 00
The W. W. Farnsworth Co.	Waterville, O.....	3d best 3 varieties Summer.....	1 00
The W. W. Farnsworth Co.	Waterville, O.....	Best 3 varieties Fall.....	3 00
Wm. Miller.....	Port Clinton, O.....	2d best 3 varieties Fall.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	3d best 3 varieties Fall.....	1 00
C. W. Counter.....	West Toledo, O., R. 7..	Best 3 varieties Winter.....	3 00
Fred. Hutchinson.....	Clyde, O.....	2d best 3 varieties Winter.....	2 00
The W. W. Farnsworth Co.	Waterville, O.....	3d best 3 varieties Winter.....	1 00
Wm. Miller.....	Port Clinton, O.....	Best 5 varieties, dessert and culinary qualities to be considered.....	5 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best 5 varieties, dessert and culinary qualities to be considered.....	3 00
H. Burkholder.....	Clyde, O.....	3d best 5 varieties, dessert and culinary qualities to be considered.....	2 00
The W. W. Farnsworth Co.	Waterville, O.....	Best 5 varieties, market qualities to be considered.....	5 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best 5 varieties, market qualities to be considered.....	3 00
Wm. Miller.....	Port Clinton, O.....	3d best 5 varieties, market qualities to be considered.....	2 00
The W. W. Farnsworth Co.	Waterville, O.....	Best collection of 10 varieties dessert, culinary and market qualities to be considered.....	12 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best collection of 10 varieties dessert, culinary and market qualities to be considered.....	8 00
Wm. Miller.....	Port Clinton, O.....	3d best collection of 10 varieties dessert, culinary and market qualities to be considered.....	5 00

HORTICULTURAL PRODUCTS—Continued.

PEARS—Continued.

Name.	Postoffice.	Awards.	Amount.
Best Single Trays, 11½ by 18 in. each, of fall varieties:			
C. W. Counter.....	West Toledo, O., R. 7....	Best Bartlett.....	\$5 00
Wm. Miller.....	Port Clinton, O.....	2d best Bartlett.....	3 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	3d best Bartlett.....	2 00
Wm. Miller.....	Port Clinton, O.....	Best Duchess.....	5 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best Duchess.....	3 00
The W. W. Farnsworth Co.....	Waterville, O.....	3d best Duchess.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Anjou.....	5 00
Wm. Miller.....	Port Clinton, O.....	2d best Anjou.....	3 00
Plate of each of the following varieties summer:			
A. L. Maag.....	Hallsville, O.....	Best Bartlett.....	2 00
W. H. Ortman.....	Hallsville, O.....	2d best Bartlett.....	1 50
Wm. Miller.....	Port Clinton, O.....	3d best Bartlett.....	1 00
E. G. Cox.....	Proctorville, O.....	4th best Bartlett.....	50
Fred. Hutchinson.....	Clyde, O.....	Best Clapp's Favorite.....	2 00
Wm. Miller.....	Port Clinton, O.....	2d best Clapp's Favorite.....	1 50
Mrs. T. S. Johnson.....	Port Clinton, O.....	3d best Clapp's Favorite.....	1 00
The W. W. Farnsworth Co.....	Waterville, O.....	Best Doyenne Boussock.....	2 00
C. W. Counter.....	West Toledo, O., R. 7....	2d best Doyenne Boussock.....	1 50
Mrs. T. S. Johnson.....	Port Clinton, O.....	3d best Doyenne Boussock.....	1 00
Wm. Miller.....	Port Clinton, O.....	4th best Doyenne Boussock.....	50
Wm. Miller.....	Port Clinton, O.....	Best Flemish Beauty.....	2 00
Fred. Hutchinson.....	Clyde, O.....	2d best Flemish Beauty.....	1 50
Mabel Hutchinson.....	Clyde, O.....	3d best Flemish Beauty.....	1 00
C. W. Counter.....	West Toledo, O., R. 7....	Best Tyson.....	2 00
Fred. Hutchinson.....	Clyde, O.....	2d best Tyson.....	1 50
Mabel Hutchinson.....	Clyde O.....	3d best Tyson.....	1 00

FALL.

Name.	Postoffice.	Awards.	Amount.
Mabel Hutchinson.....	Clyde, O.....	Best Beurre Bose.....	\$2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best Beurre Bose.....	1 50
Fred Hutchinson.....	Clyde, O.....	3d best Beurre Bose.....	1 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Beurre Clairgeau.....	2 00
The W. W. Farnsworth Co.....	Waterville, O.....	2d best Beurre Clairgeau.....	1 50
Fred. Hutchinson.....	Clyde, O.....	3d best Beurre Clairgeau.....	1 00
C. W. Counter.....	West Toledo, O., R. 7....	4th best Beurre Clairgeau.....	50
Wm. Miller.....	Port Clinton, O.....	Best Duchess.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best Duchess.....	1 50
Fred. Hutchinson.....	Clyde, O.....	3d best Duchess.....	1 00
H. Burkholder.....	Clyde, O.....	4th best Duchess.....	50
The W. W. Farnsworth Co.....	Waterville, O.....	Best Howell.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best Howell.....	1 50
Wm. Miller.....	Port Clinton, O.....	3d best Howell.....	1 00
Fred. Hutchinson.....	Clyde, O.....	Best Louise Bonne.....	2 00
Mabel Hutchinson.....	Clyde, O.....	2d best Louise Bonne.....	1 50
Mrs. T. S. Johnson.....	Port Clinton, O.....	3d best Louise Bonne.....	1 00
Wm. Miller.....	Port Clinton, O.....	4th best Louise Bonne.....	50
E. G. Cox.....	Proctorville, O.....	Best Seckel.....	2 00
W. H. Ortman.....	Hallsville, O.....	2d best Seckel.....	1 50
Mabel Hutchinson.....	Clyde, O.....	Best Sheldon.....	2 00
Wm. Miller.....	Port Clinton, O.....	2d best Sheldon.....	1 50
C. W. Counter.....	West Toledo, O., R. 7....	3d best Sheldon.....	1 00
Fred. Hutchinson.....	Clyde, O.....	4th best Sheldon.....	50
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Vermont Beauty.....	2 00
Wm. Miller.....	Port Clinton, O.....	2d best Vermont Beauty.....	1 50
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Doyenne.....	2 00
Wm. Miller.....	Port Clinton, O.....	2d best Doyenne.....	1 50
Mabel Hutchinson.....	Clyde, O.....	3d best Doyenne.....	1 00
Fred. Hutchinson.....	Clyde, O.....	4th best Doyenne.....	50
H. Burkholder.....	Clyde, O.....	Best Worden Seckel.....	2 00
Fred. Hutchinson.....	Clyde, O.....	2d best Worden Seckel.....	1 50

HORTICULTURAL PRODUCTS—Continued.

PEARS—Concluded—WINTER.

Name.	Postoffice.	Awards.	Amount.
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Anjou.....	\$2 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best Anjou.....	1 50
Wm. Miller.....	Port Clinton, O.....	3d best Anjou.....	1 00
The W. W. Farnsworth Co.	Waterville, O.....	4th best Anjou.....	50
C. W. Counter.....	West Toledo, O., R. 7..	Best Columbia.....	2 00
The W. W. Farnsworth Co.	Waterville, O.....	2d best Columbia.....	1 50
The W. W. Farnsworth Co.	Waterville, O.....	Best Keifer.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best Keifer.....	1 50
Fred. Hutchinson.....	Clyde, O.....	3d best Keifer.....	1 00
H. Burkholder.....	Clyde, O.....	4th best Keifer.....	50
The W. W. Farnsworth Co.	Waterville, O.....	Best Lamence.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best Lamence.....	1 50
Wm. Miller.....	Port Clinton, O.....	3d best Lamence.....	1 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	4th best Lamence.....	50
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Winter Nellis.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best Winter Nellis.....	1 50
The W. W. Farnsworth Co.	Waterville, O.....	3d best Winter Nellis.....	1 00

GRAPES.

JUDGE, C. E. BASSETT.

Premiums offered.....		\$120 00
Premiums paid.....		109 00
Entries.....	128	

Name.	Postoffice.	Awards.	Amount.
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best 6 varieties, table quality to be considered.....	\$5 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best 6 varieties, table quality to be considered ..	3 00
C. W. Counter.....	West Toledo, O., R. 7..	Best 6 varieties, market quality to be considered ..	5 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best 6 varieties, market quality to be considered ..	3 00
C. W. Counter.....	West Toledo, O., R. 7..	Best collection 10 varieties.....	8 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best collection, 10 varieties.....	5 00
C. W. Counter.....	West Toledo, O., R. 7..	Best collection 20 varieties.....	12 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best collection 20 varieties.....	10 00
Plate of each of the following, 4 bunches each:			
H. C. Stewart.....	Thornville, O.....	Best Agawanx.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Brighton.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Brilliant.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	Best Campbell's Early.....	2 00
The W. W. Farnsworth Co.	Waterville, O.....	2d best Campbell's Early.....	1 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Colerain.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	Best Concord.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best Concord.....	1 00
C. W. Counter.....	West Toledo, O., R. 7..	Best Delaware.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best Delaware.....	1 00
C. W. Counter.....	West Toledo, O., R. 7..	Best Empire State.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best Empire State.....	1 00
C. W. Counter.....	West Toledo, O., R. 7..	Best Green Mountain.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best Green Mountain.....	1 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Ives.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	Best King.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best King.....	1 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Lindley.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	Best Moore's Diamond.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	2d best Moore's Diamond.....	1 00
C. W. Counter.....	West Toledo, O., R. 7..	Best Moore's Early.....	2 00
The W. W. Farnsworth Co.	Waterville, O.....	2d best Moore's Early.....	1 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Moyer.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best Moyer.....	1 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Niagara.....	2 00
Harry Bookwalter.....	Hallsville, O.....	2d best Niagara.....	1 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Pocklington.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best Pocklington.....	1 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Salem.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best Salem.....	1 00
C. W. Counter.....	West Toledo, O., R. 7..	Best Vergennes.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Wilder.....	2 00
Mrs. T. S. Johnson.....	Port Clinton, O.....	Best Woodruff Red.....	2 00
C. W. Counter.....	West Toledo, O., R. 7..	2d best Woodruff Red.....	1 00
C. W. Counter.....	West Toledo, O., R. 7..	Best Worden.....	2 00
Harry Bookwalter.....	Hallsville, O.....	2d best Worden.....	1 00

HORTICULTURAL PRODUCTS—Continued.

COUNTY FRUITS.

JUDGE, C. E. BASSETT.

Premiums offered.....	\$390 00
Premiums paid.....	300 00
Entries.....	4

Name.	Postoffice.	Awards.	Amount.
The W. W. Farnsworth Co.	Waterville, O.	Best county exhibit of 100 plates of fruit of various kinds.....	\$100 00
Gill & Johnson.....	Port Clinton, O.	2d best county exhibit of 100 plates of fruit of various kinds.....	85 00
U. T. Cox.....	Proctorville, O.	3d best county exhibit of 100 plates of fruit of various kinds.....	65 00
Fred. Hutchinson.....	Clyde, O.	4th best county exhibit of 100 plates of fruit of various kinds.....	50 00

PLANTS AND FLOWERS.

JUDGE, J. L. SCHILLER.

Premiums offered.....	\$204 00
Premiums paid.....	201 00
Entries.....	28

DECORATIVE AND FLOWERING PLANTS—PROFESSIONAL LIST.

Name.	Postoffice.	Awards.	Amount.
Livingston Seed Co.	Columbus, O.	Best collection of Palms, 6 or more varieties.....	\$12 00
S. F. Stephens.....	Columbus, O., Clover Hill Greenhouse.....	2d best collection of Palms, 6 or more varieties.....	8 00
S. F. Stephens.....	Columbus, O., Clover Hill Green House.....	Best single specimen Palm.....	8 00
Livingston Seed Co.	Columbus, O.	2d best single specimen Palm.....	4 00
Indianola Florists.....	Columbus, O.	Best collection of Ferns and Lycopodium, 15 or more varieties.....	12 00
Livingston Seed Co.	Columbus, O.	2d best collection of Ferns and Lycopodiums, 15 or more varieties.....	8 00
Indianola Florists.....	Columbus, O.	Best collection of variegated foliage plants.....	10 00
Livingston Seed Co.	Columbus, O.	2d best collection of variegated foliage plants.....	5 00
Indianola Florists.....	Columbus, O.	Best collection of stove and greenhouse plants, not less than 50.....	20 00
Livingston Seed Co.	Columbus, O.	2d best collection of stove and greenhouse plants, not less than 50.....	12 00
Livingston Seed Co.	Columbus, O.	Best collection of Begonias.....	10 00
Indianola Florists.....	Columbus, O.	2d best collection of Begonias.....	5 00
Indianola Florists.....	Columbus, O.	Best collection of Cannas.....	10 00
Livingston Seed Co.	Columbus, O.	2d best collection of Cannas.....	5 00
Indianola Florists.....	Columbus, O.	Best collection of Geraniums in bloom, not less than 8 varieties.....	10 00
Livingston Seed Co.	Columbus, O.	2d best collection of Geraniums in bloom, not less than 8 varieties.....	5 00
Livingston Seed Co.	Columbus, O.	Best collection of Asters in pots.....	5 00
Livingston Seed Co.	Columbus, O.	2d best collection of Asters in pots.....	3 00
Livingston Seed Co.	Columbus, O.	Best single basket, filled with plants.....	5 00
Indianola Florists.....	Columbus, O.	2d best single basket, filled with plants.....	3 00
Livingston Seed Co.	Columbus, O.	Best vase filled with plants.....	6 00
Indianola Florists.....	Columbus, O.	2d best vase filled with plants.....	4 00
Livingston Seed Co.	Columbus, O.	Best pair Hanging Basket.....	5 00
Indianola Florists.....	Columbus, O.	2d best pair Hanging Basket.....	3 00
Livingston Seed Co.	Columbus, O.	Best Porch Box.....	6 00
Indianola Florists.....	Columbus, O.	2d best Porch Box.....	4 00
Livingston Seed Co.	Columbus, O.	Best single specimen Rubber Plant.....	5 00
Livingston Seed Co.	Columbus, O.	2d best single specimen Rubber Plant.....	3 00
Livingston Seed Co.	Columbus, O.	Best single specimen Asparagus, sprengeri or plumosus.....	5 00

HORTICULTURAL PRODUCTS—Continued.

CUT FLOWERS AND FLORAL DESIGNS—PROFESSIONAL LIST.

JUDGE, J. L. SCHILLER.

Premiums offered.....	\$523 00
Premiums paid.....	483 00
Entries.....	40

Name.	Postoffice.	Awards.	Amount.
Livingston Seed Co.....	Columbus, O.....	Best pair of Bouquets.....	\$10 00
Indianola Florists.....	Columbus, O.....	2d best pair of Bouquets.....	5 00
Livingston Seed Co.....	Columbus, O.....	Best Dining Table Vase, not less than 24 in. high.....	10 00
Indianola Florists.....	Columbus, O.....	2d best Dining Table Vase, not less than 24 in. high.....	5 00
Livingston Seed Co.....	Columbus, O.....	Best Dining Table Vase, not over 12 inches high.....	5 00
Indianola Florists.....	Columbus, O.....	2d best Dining Table Vase, not over 12 inches high.....	3 00
Livingston Seed Co.....	Columbus, O.....	2d best large Festival design.....	20 00
Indianola Florists.....	Columbus, O.....	2d best large Festival design.....	10 00
Livingston Seed Co.....	Columbus, O.....	Best display of Cut Roses.....	25 00
Indianola Florists.....	Columbus, O.....	2d best display of Cut Roses.....	15 00
Livingston Seed Co.....	Columbus, O.....	Best display of Cut Gladioli.....	15 00
Indianola Florists.....	Columbus, O.....	2d best display of Cut Gladioli.....	10 00
Livingston Seed Co.....	Columbus, O.....	Best display of Cut Carnations.....	10 00
Indianola Florists.....	Columbus, O.....	2d best display of Cut Carnations.....	5 00
Livingston Seed Co.....	Columbus, O.....	Best display of Cut Asters.....	10 00
Indianola Florists.....	Columbus, O.....	2d best display of Cut Asters.....	5 00
S. F. Stephens.....	Columbus, O., Clover Hill Green House.....	Best display of any variety of Cut Flowers.....	10 00
Indianola Florists.....	Columbus, O.....	2d best display of any variety of Cut Flowers.....	5 00
Livingston Seed Co.....	Columbus, O.....	Best display of Cut Flowers, not less than 25 varieties, etc.....	25 00
Indianola Florists.....	Columbus, O.....	2d best display of Cut Flowers, not less than 25 varieties, etc.....	15 00
Livingston Seed Co.....	Columbus, O.....	3d best display of Cut Flowers, not less than 25 varieties, etc.....	10 00
Indianola Florists.....	Columbus, O.....	Best finest decorated Dining Table.....	80 00
Livingston Seed Co.....	Columbus, O.....	2d best finest decorated Dining Table.....	60 00
Hope A. Bell.....	Columbus, O.....	3d best finest decorated Dining Table.....	40 00
Elizabeth Du Pre.....	523 W. 3d Ave., City.....	4th best finest decorated Dining Table.....	25 00

PLANTS AND FLOWERS—AMATEUR LIST.

JUDGE, J. L. SCHILLER.

Premiums offered.....	\$165 00
Premiums paid.....	157 00
Entries.....	96

Name.	Postoffice.	Awards.	Amount.
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City.....	Best display of Palms.....	\$8 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	2d best display of Palms.....	5 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City.....	Best display of Ferns.....	6 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	2d best display of Ferns.....	4 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City.....	Best display of Cacti and Aloes.....	5 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	2d best display of Cacti and Aloes.....	3 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City.....	Best display of variegated leaved plants, other than coleus.....	5 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	2d best display of variegated leaved plants, other than coleus.....	3 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	Best display of Climbing Plants.....	5 00
Mrs. S. J. Housel.....	1305 Forsythe Ave., City.....	2d best display of Climbing Plants.....	3 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City.....	Best display of Begonias.....	6 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	2d best display of Begonias.....	4 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City.....	Best display of Geraniums.....	6 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., City.....	2d best display of Geraniums.....	4 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City.....	Best display of Asters, pot grown.....	3 00
Albert Pearce.....	Akron, O.....	2d best display of Asters, pot grown.....	2 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	Best display of Coleus.....	6 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City.....	2d best display of Coleus.....	4 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City.....	Best single vase filled with plants.....	3 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	2d best single vase filled with plants.....	2 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City.....	Best Hanging Basket.....	3 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	2d best Hanging Basket.....	2 00
Hope A. Bell.....	Columbus, O.....	Best porch box filled with plants.....	4 00
Mrs. L. J. Housel.....	1305 Forsythe Ave., City.....	2d best porch box filled with plants.....	2 00

HORTICULTURAL PRODUCTS—Concluded.
PLANTS AND FLOWERS—AMATEUR LIST—Concluded.

Name.	Postoffice.	Awards.	Amount.
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	Best single specimen Palm.....	\$2 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City..	2d best single specimen Palm.....	1 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City..	Best single specimen Boston Fern.....	2 00
Albert Pearce.....	Akron, O.....	2d best single specimen Boston Fern.....	1 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City..	Best single specimen Rubber Plant.....	2 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	2d best single specimen Rubber Plant.....	1 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., City.....	Best single specimen Asparagus Plumosa.....	2 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City..	2d best single specimen Asparagus Plumosa.....	1 00
Hope A. Bell.....	Columbus, O.....	Best single specimen Asparagus Sprengeri.....	2 00
Mrs. L. J. Housel.....	1305 Forsythe Ave., City.....	2d best single specimen Asparagus Sprengeri.....	1 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City..	Best single specimen Araucaria Pine.....	2 00
Albert Pearce.....	Akron, O.....	2d best single specimen Araucaria Pine.....	1 00
Mrs. W. A. Forbes.....	246 Marshall Ave., City.....	Best single Caladium.....	2 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., City.....	2d best single Caladium.....	1 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City..	Best single specimen Scented Geranium.....	2 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	2d best single specimen Scented Geranium.....	1 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City..	Best single specimen Flowering Geranium.....	2 00
Albert Pearce.....	Akron, O.....	Best single specimen Fuchsia.....	2 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	Best single specimen Begonia (in bloom).....	2 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City..	2d best single specimen Begonia (in bloom).....	1 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City..	Best single specimen Aspidistra.....	2 00
Albert Pearce.....	Akron, O.....	2d best single specimen Aspidistra.....	1 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City..	Best single specimen Canna.....	2 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	2d best single specimen Canna.....	1 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	Best single specimen Umbrella Plant.....	2 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City..	Best display of all varieties of plants and flowers, not less than 50.....	12 00
Mrs. T. H. Kennedy.....	373 Marshall Ave., City.....	2d best display of all varieties of plants and flowers, not less than 50.....	8 00

CUT FLOWERS—AMATEUR LIST.

JUDGE, J. L. SCHILLER.

Premiums offered.....	\$40 00
Premiums paid.....	35 00
Entries.....	3

Name.	Postoffice.	Awards.	Amount.
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., City..	Best display of Cut Flowers not less than 25 varieties, shown in separate vases, of not less than 3 of each variety, etc.....	\$15 00
Mrs. T. H. Kennedy.....	373 Marshall Ave.....	2d best display of Cut Flowers not less than 25 varieties, shown in separate vases, of not less than 3 of each variety.....	12 00
Albert Pearce.....	Akron, O.....	3d best display of Cut Flowers not less than 25 varieties, shown in separate vases, of not less than 3 of each variety, etc.....	8 00

ELEVENTH DEPARTMENT—WOMAN'S WORK.

T. E. CROMLEY, In Charge.

MRS. AMY C. NICKERSON.....Superintendent

JUDGES.

MRS. ANNA MAHER, MRS. SOPHIE JOSEPH, MRS. F. JOSEPH, AUGUSTA P. LATHAM,
MRS. F. J. PETERS.

Received from sale of floor space, 1913.....	\$94 40
Premiums offered, 1913.....	1,922 50
Premiums paid, 1913.....	1,763 50
Entries.....	3,544
Paid superintendent, judges, etc., 1913.....	\$318 20
Received for care of exhibits and space, 1912.....	\$149 40
Paid superintendents, judges, etc., 1912.....	1,029 75
Premiums offered, 1912.....	2,038 00
Premiums paid, 1912.....	1,922 50
Total Number of Entries, 1912.....	4,519
Received for care of exhibits and space, 1911.....	\$167 60
Paid superintendents, judges, etc., 1911.....	1,030 40
Premiums offered, 1911.....	2,327 50
Premiums paid, 1911.....	2,106 00
Total Number of Entries, 1911.....	4,705
Received for care of exhibits and space, 1910.....	\$394 50
Paid superintendent, judges, etc., 1910.....	688 45
Premiums offered, 1910.....	1,789 50
Premiums paid, 1910.....	1,534 00
Total Number of Entries, 1910.....	3,721

HOUSEHOLD FABRICS.

JUDGE, MRS. ANNA MAHER.

Premiums offered.....	\$46 00
Premiums paid.....	41 00
Entries.....	71

Name.	Postoffice.	Awards.	Amount.
Mrs. F. C. McGaughy.....	615 W. Main St., Galion, O....	Best silk quilt.....	\$3 00
Mrs. A. C. Cook.....	Marion, O., Park and Short Sts	2d best silk quilt.....	2 00
Miss Elizabeth Leigh.....	Groveport, O.....	Best Japanese silk quilt (crazy).....	3 00
Mrs. Z. L. Herrington.....	Coshocton, O.....	2d best Japanese silk quilt (crazy).....	2 00
Mrs. W. H. Covault.....	Mechanicsburg, O.....	Best white quilt.....	2 00
Mrs. L. J. Housel.....	Columbus, O., 1305 Forsythe Ave.	Best applique quilt.....	2 00
Amelia D. Covault.....	Mechanicsburg, O.....	2d best applique quilt.....	1 00
Fannie E. Boyd.....	120 W. Lane Ave., Columbus, Ohio.	Best calico patch work quilt.....	2 00
Mrs. S. C. Cook.....	Park and Short Sts., Marion, O	2d best calico patch work quilt.....	2 00
Mrs. Dora Adams.....	London, O., R. 3.....	Best cradle quilt (calico).....	2 00
Grace B. Matson.....	Ashtabula, O.....	Best cradle quilt (silk).....	1 00
Mrs. Dora Adams.....	London, O., R. 3.....	2d best cradle quilt (silk).....	2 00
Mrs. Clara Binckley.....	445 W. 2d Ave., Columbus, O.	Best specimen of quilting.....	1 00
Mrs. Dora Adams.....	London, O., R. 3.....	2d best specimen of quilting.....	2 00
Mrs. W. G. Himmeger.....	677 Park St., Marion, O.....	Best silk comfort.....	1 00
Mrs. R. P. Haines.....	1749 N. 4th St., Columbus, O....	2d best silk comfort.....	2 00
Mrs. Dora Adams.....	London, O., R. 3.....	Best worsted comfort.....	1 00
Mrs. S. C. Cook.....	Marion, O., Park and Short Sts	2d best worsted comfort.....	2 00
Louise Zumbheller.....	Dayton, O., 322 3d Ave.....	Best hand made rug.....	1 00
Mrs. L. J. Pulliam.....	Springfield, Ill., 1020 S. 7th St	2d best hand made rug.....	2 00
Grace B. Matson.....	Ashtabula, O.....	Best woven portieres.....	1 00
Mrs. E. Buck.....	Lockland, O.....	2d best woven portieres.....	2 00
Mary Stewart.....	Jacksontown, O.....	Best rag carpet not less than 6 yards.....	1 00
Mrs. A. C. Cook.....	Marion, O., Park and Short Sts	2d best rag carpet not less than 6 yards.....	1 00

WOMAN'S WORK—Continued.

KNITTING—AMATEUR.

JUDGE, MRS. ANNA MAHER.

Premiums offered.....		\$54 00
Premiums paid.....		51 00
Entries.....	95	

Name.	Postoffice.	Awards.	Amount.
Mrs. E. Buck.....	219 Arlington Ave., Lockland, O.	Best pair silk stockings.....	\$2 00
Grace E. Matson.....	Ashtabula, O.	2d best pair silk stockings.....	1 00
Mrs. E. Buck.....	219 Arlington Ave., Lockland, O.	Best pair silk socks.....	2 00
Miss L. P. Warman.....	2727 Harris Ave., N.wood, O.	2d best pair silk socks.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best pair woolen stockings.....	2 00
Mrs. E. Buck.....	219 Arlington Ave., Lockland, O.	2d best pair woolen stockings.....	1 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.	Best pair woolen socks.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	2d best pair woolen socks.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best pair silk mittens.....	2 00
Mrs. L. C. Covault.....	Mechanicsburg, O.	2d best pair silk mittens.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best pair woolen mittens.....	2 00
Amelia Covault.....	Mechanicsburg, O.	2d best pair woolen mittens.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best pair slippers.....	2 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.	2d best pair slippers.....	1 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.	Best lady's skirt.....	2 00
Mrs. E. Buck.....	219 Arlington Ave., Lockland, O.	2d best lady's skirt.....	1 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.	Best lady's sweater.....	2 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.	2d best lady's sweater.....	1 00
Mrs. G. V. H. Saltzgaber.....	222 1/2 S. Washington St., Van Wert, O.	Best shawl, large.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	2d best shawl, large.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best afghan, large.....	2 00
Mrs. E. Buck.....	219 Arlington Ave., Lockland, O.	2d best afghan, large.....	1 00
Mrs. L. C. Covault.....	Mechanicsburg, O.	Best woolen lace, 2 yards.....	2 00
Amelia D. Covault.....	Mechanicsburg, O.	2d best woolen lace, 2 yards.....	1 00
Mrs. W. H. Covault.....	Mechanicsburg, O.	Best cotton lace, 2 yards.....	2 00
Mrs. R. P. Hain.....	1749 N. 4th St., Columbus, O.	2d best cotton lace, 2 yards.....	1 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.	Best linen lace, 2 yards.....	2 00
Amelia D. Covault.....	Mechanicsburg, O.	2d best linen lace, 2 yards.....	1 00
Grace B. Matson.....	Ashtabula, O.	Best insertion, 2 yards.....	2 00
Mrs. W. L. Russell.....	485 Allyn St., Akron, O.	2d best insertion, 2 yards.....	1 00
Mrs. H. R. Gentsch.....	1225 Farwell, Chicago, Ill.	Best bag.....	2 00
Mrs. W. H. Covault.....	Mechanicsburg, O.	2d best bag.....	1 00
Miss Elizabeth Leigh.....	Groveport, O.	Best corset cover.....	2 00
Amelia D. Covault.....	Mechanicsburg, O.	2d best corset cover.....	1 00

CROCHET WORK—AMATEUR.

JUDGE, MRS. ANNA MAHER.

Premiums offered.....		\$66 50
Premiums paid.....		62 00
Entries.....	218	

Name.	Postoffice.	Awards.	Amount.
Mrs. C. L. Crippen.....	87 E. 7th St., Columbus, O.	Best pair slippers.....	\$2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	2d best pair slippers.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best lady's skirt.....	2 00
Mrs. E. Buck.....	219 Arlington Ave., Lockland, O.	2d best lady's skirt.....	1 00
Mrs. G. V. H. Saltzgaber.....	222 1/2 Washington Ave., Van Wert, O.	Best shawl (large).....	2 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.	2d best shawl (large).....	1 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.	Best afghan (small).....	2 00
Mrs. G. V. H. Saltzgaber.....	222 1/2 S. Washington Ave., Van Wert, O.	2d best afghan (small).....	1 00
Mrs. L. J. Sullivan.....	1020 S. 7th St., Springfield, Ill.	Best cotton lace, 2 yards.....	1 00
Grace B. Matson.....	Ashtabula, O.	2d best cotton lace, 2 yards.....	50
Amelia D. Covault.....	Mechanicsburg, O.	Best insertion, 2 yards.....	1 00
Mrs. C. C. Slater.....	Mechanicsburg, O.	2d best insertion, 2 yards.....	50
Grace B. Matson.....	Ashtabula, O.	Best scarf, maltese crochet.....	2 00
Mrs. F. W. Kibbe.....	1403 Huron St., Lexington, Ky	2d best scarf, maltese crochet.....	1 00

WOMAN'S WORK—Continued.

Name.	Postoffice.	Awards.	Amount.
CROCHET WORK—AMATEUR—Concluded.			
Mrs. W. H. Covault.....	Mechanicsburg, O.....	Best belt.....	\$2 00
Mrs. C. J. Rockey.....	29 E. Gambier St., Mt. Vernon, O.....	2d best belt.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.....	Best necktie, silk.....	2 00
Amelia D. Covault.....	Mechanicsburg, O.....	2d best necktie, silk.....	1 00
Mrs. Frank F. Frazier.....	53 E. Euclid Ave., Columbus, O.....	Best bag.....	2 00
Mrs. G. V. H. Saltzgeber.....	2224 S. Washington Ave., Van Wert, O.....	2d best bag.....	1 00
Mrs. H. R. Gentsch.....	1225 Farwell Ave., Chicago, Ill.....	Best purse.....	2 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.....	2d best purse.....	1 00
Mrs. L. J. Housel.....	1305 Forsythe Ave., Columbus, O.....	Best silk cord with tassel.....	1 00
Amelia D. Covault.....	Mechanicsburg, O.....	2d best silk cord with tassel.....	50
Mrs. L. J. Housel.....	1305 Forsythe Ave., Columbus, O.....	Best ruching.....	1 00
Mrs. W. H. Covault.....	Mechanicsburg, O.....	2d best ruching.....	50
Mrs. L. C. Covault.....	Mechanicsburg, O.....	Best centerpiece crocheted edge.....	2 00
Mrs. A. W. Phelps.....	442 W. 6th Ave., Columbus, O.....	2d best centerpiece crocheted edge.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.....	Best half dozen table mats, one size.....	2 00
Mrs. N. W. Florence.....	504 Franklin Ave., Columbus, O.....	2d best half dozen table mats, one size.....	1 00
Mrs. Charles Kientz.....	Columbus, O.....	Best lunch set of linen work, crocheted edge, 1 large and 6 small pieces.....	3 00
Mrs. Thomas W. Brown.....	Circleville, O.....	2d best lunch set of linen work, crocheted edge, 1 large and 6 small pieces.....	2 00
Mrs. Frank F. Frazier.....	53 Euclid Ave., Columbus, O.....	Best table runner with linen block or stripes.....	2 00
Mrs. Roy T. McClure.....	324 N. Hinde, Washington C. H., O.....	2d best table runner with linen block or stripes.....	1 00
Mrs. Grace Bigelow.....	Plain City, O.....	Best bed spread with linen stripes or blocks.....	3 00
Mrs. F. F. Spangler.....	211 W. 5th Ave., Columbus, O.....	2d best bed spread with linen stripes or blocks.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.....	Best bed spread.....	3 00
Mrs. B. F. Sampson.....	1103 Pennsylvania Ave., Columbus, O.....	2d best bed spread.....	2 00
Mrs. R. P. Carter.....	157 S. Ogden, Columbus, O.....	Best display, 3 pieces.....	3 00
Mrs. Guy Titsworth.....	312 W. Broadway, Sedalia, Mo.....	2d best display, 3 pieces.....	2 00

HAND SEWING WORK—AMATEUR.

JUDGE, MRS. ANNA MAHER.

Premiums offered.....	\$39 00
Premiums paid.....	35 00
Entries.....	107

Name.	Postoffice.	Awards.	Amount.
Mrs. Clara Fogle.....	Mt. Gilead, O.....	Best pair pillow cases.....	\$2 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., Columbus, O.....	2d best pair pillow cases.....	1 00
Mrs. G. V. H. Saltzgeber.....	2224 S. Washington Ave., Van Wert, O.....	Best sheet.....	2 00
Mrs. C. C. Slater.....	Mechanicsburg, O.....	2d best sheet.....	1 00
Mrs. Louis Innis.....	1053 Madison Ave., Columbus, O.....	Best lady's combing jacket.....	2 00
Grace B. Matson.....	Ashtabula, O.....	2d best lady's combing jacket.....	1 00
Mrs. W. H. Covault.....	Mechanicsburg, O.....	Best combination suit.....	2 00
Mrs. N. W. Florence.....	504 Franklin Ave., Columbus, O.....	2d best combination suit.....	1 00
Mrs. Clara Fogle.....	Mt. Gilead, O.....	Best night dress.....	2 00
Mrs. C. L. Crippen.....	27 E. 7th Ave., Columbus, O.....	2d best night dress.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.....	Best corset cover.....	2 00
Mrs. L. J. Housel.....	1305 Forsythe Ave., Columbus, O.....	2d best corset cover.....	1 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.....	Best shirt.....	2 00
Mrs. S. C. Cook.....	Park and Short Sts., Marion, O.....	2d best shirt.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.....	Best fancy apron.....	2 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.....	2d best fancy apron.....	1 00
Mrs. F. M. Brownell.....	1626 Pembroke Ave., Columbus, O.....	Best boudoir cap.....	2 00
Amelia D. Covault.....	Mechanicsburg, O.....	2d best boudoir cap.....	1 00
Mrs. Z. S. Herrington.....	Coshocton, O.....	Best evening cap.....	2 00

WOMAN'S WORK—Continued.

Name.	Postoffice.	Awards.	Amount.
HAND SEWING WORK—AMATEUR—Concluded.			
Miss Nannie Hall.....	838 W. High St., Lexington, O.....	Best jabot.....	\$2 00
Miss Rachael M. Smith.....	Trinway, O., R. 1.....	2d best jabot.....	1 00
Mrs. Guy Titworth.....	312 W. Broadway, Sedalia, Mo.....	Best collar and cuffs to match.....	2 00
Mrs. L. J. Housel.....	1305 Forsythe Ave., Columbus, O.....	2d best collar and cuffs to match.....	1 00

SHIRT · WAISTS—AMATEUR.

JUDGE, MRS. SOPHIE JOSEPH.

Premiums offered.....	\$44 00
Premiums paid.....	44 00
Entries.....	75

Name.	Postoffice.	Awards.	Amount.
Miss Mary Goddard.....	78 E. Capital, Columbus, O.....	Best eyelet embroidery.....	\$3 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington Ave., Van Wert, O.....	2d best eyelet embroidery.....	2 00
Mrs. Guy Titworth.....	312 W. Broadway, Sedalia, Mo.....	Best lace and solid embroidery.....	3 00
Grace B. Matson.....	Ashtabula, O.....	2d best lace and solid embroidery.....	2 00
Mrs. Emma Gearhart.....	117 E. Crawford St., Van Wert, O.....	Best French embroidery.....	3 00
Mrs. Clara Fogle.....	Mt. Giload, O.....	2d best French embroidery.....	2 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington Ave., Van Wert, O.....	Best French and eyelet embroidery.....	3 00
Mrs. Emma Gearhart.....	117 Crawford St., Van Wert, O.....	2d best French and eyelet embroidery.....	2 00
Mrs. Emma Gearhart.....	117 Crawford St., Van Wert, O.....	Best braided.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.....	2d best braided.....	1 00
Grace B. Matson.....	Ashtabula, O.....	Best drawn work.....	2 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., Columbus, O.....	2d best drawn work.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.....	Best cross stitch work.....	2 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington Ave., Van Wert, O.....	2d best cross stitch work.....	1 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington Ave., Van Wert, O.....	Best fancy.....	3 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.....	2d best fancy.....	2 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.....	Best Irish crochet.....	3 00
Miss Louise Innis.....	1053 Madison Ave., Columbus, O.....	2d best Irish crochet.....	2 00
Mrs. Guy Titworth.....	312 Broadway, Sedalia, Mo.....	Best punch work and Louis XIV combined.....	3 00
Mrs. W. B. Wolf.....	22 Augustine Ave., Mansfield, O.....	2b best punch work and Louis XIV combined.....	2 00

INFANTS' DEPARTMENT.

JUDGE, MRS. ANNA MAHER.

Premiums offered.....	\$48 00
Premiums paid.....	40 00
Entries.....	117

Name.	Postoffice.	Awards.	Amount.
Mrs. G. V. H. Saltzgaber.....	222½ Washington Ave., Van Wert, O.....	Best infant's robe and skirt embroidered.....	\$2 00
Mrs. L. J. Pulliam.....	1020 S. 7th St., Springfield, Ill.....	2d best infant's robe and skirt embroidered.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.....	Best infant's bib embroidered.....	2 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.....	2d best infant's bib embroidered.....	1 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.....	2d best embroidered Kimono, silk or cotton.....	1 00
Mrs. Guy Titworth.....	312 Broadway, Sedalia, Mo.....	Best embroidered pillow, made up.....	2 00
Mrs. Marjorie Stillwell.....	634 Oak St., Columbus, O.....	2d best embroidered pillow, made up.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.....	Best embroidered carriage rug.....	2 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington Ave., Van Wert, O.....	2d best embroidered carriage rug.....	1 00
Mrs. G. A. Norrington.....	Linden Heights, O.....	Best baby's short dress, hand made.....	2 00
Mrs. L. J. Pulliam.....	1020 S. 7th St., Springfield, Ill.....	2d best baby's short dress, hand made.....	1 00

WOMAN'S WORK—Continued.

Name,	Postoffice.	Awards.	Amount.
INFANTS' DEPARTMENT—Concluded.			
Low McIntyre.....	Columbus, O.	Best baby's cap, crocheted.....	\$2 00
Mrs. Geo. Sands.....	217 Superior St., Kokomo, Ind.	2d best baby's cap, crocheted.....	1 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.	Best baby's cap, point lace.....	2 00
Mrs. L. A. Waggaman.....	217 W. Superior St., Kokomo, Ind.	2d best baby's cap, point lace.....	1 00
Mrs. W. B. Kight.....	603 E. Town, Columbus, O.	Best baby's cap, Irish crochet.....	2 00
Mrs. Golda Sorman.....	217 W. Superior St., Kokomo, Ind.	2d best baby's cap, Irish crochet.....	1 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., Columbus, O.	Best baby's shoes, hand made satin.....	2 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.	2d best baby's shoes, hand made satin.....	1 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.	Best flannel underskirt, hand made.....	2 00
Grace B. Matson.....	Ashtabula, O.	2d best flannel underskirt, hand made.....	1 00
Mrs. George Sands.....	217 W. Superior St., Kokomo, Ind.	Best crocheted or knitted sacque.....	2 00
M. P. Dunlop.....	West Grove, Pa.	2d best crocheted or knitted sacque.....	1 00
Mrs. N. W. Florence.....	594 Franklin Ave., Columbus, O.	Best crocheted or knitted wool booties.....	2 00
Mrs. W. H. Covault.....	Mechanicsburg, O.	2d best crocheted or knitted wool booties.....	1 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.	Best crocheted or knitted sweater.....	2 00
Grace B. Matson.....	Ashtabula, O.	2d best crocheted or knitted sweater.....	1 00

CROSS STITCH EMBROIDERY—AMATEUR.

JUDGE, MRS. SOPHIE JOSEPH.

Premiums offered.....	\$21 00
Premiums paid.....	21 00
Entries.....	59

Name.	Postoffice.	Awards.	Amount.
Mrs. E. Buck.....	319 Arlington Ave., Lockland, O.	Best table cover.....	\$2 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.	2d best table cover.....	1 00
Mrs. Ed. Greiner.....	73 E. Williams St., Delaware, O.	Best pin cushion.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	2d best pin cushion.....	50
Elsie Evans.....	77 E. 5th Ave., Columbus, O.	Best book cover.....	2 00
Mrs. Ed. Greiner.....	73 E. Williams St., Delaware, O.	2d best book cover.....	1 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.	Best fancy bag.....	2 00
Mrs. G. V. H. Saltzgeber.....	222 1/2 Washington St., Van Wert, O.	2d best fancy bag.....	1 00
Mrs. Dora Adams.....	London, O., R. 3.....	Best apron.....	2 00
Mrs. W. H. Covault.....	Mechanicsburg, O.	2d best apron.....	1 00
Miss Nannie Hall.....	838 W. High, Lexington, Ky.	Best shirt waist set.....	2 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.	2d best shirt waist set.....	1 00
Miss Mary Goddard.....	78 E. Capital St., Columbus, O.	Best pair towels.....	2 00
Mrs. L. A. Waggaman.....	217 Superior St., Kokomo, Ind.	2d best pair towels.....	1 00
Mrs. L. C. Covault.....	Mechanicsburg, O.	Best dresser cover.....	1 00
Grace B. Matson.....	Ashtabula, O.	2d best dresser cover.....	50

COTTON OR LINEN EMBROIDERY—AMATEUR.

JUDGE, MRS. SOPHIE JOSEPH.

Premiums offered.....	\$108 00
Premiums paid.....	95 00
Entries.....	369

Name.	Postoffice.	Awards.	Amount.
Mrs. G. V. H. Saltzgeber.....	222 1/2 S. Washington St., Van Wert, O.	Best sheet.....	\$2 00
Mrs. Della Armstrong.....	Yellow Springs, O.	2d best sheet.....	1 00
Mrs. A. C. Cook.....	Park and Short St., Marion, O.	Best sheet and pillow cases to match.....	2 00
Mr. E. Buck.....	219 Arlington Ave., Lockland, O.	2d best sheet and pillow cases to match.....	1 00

WOMAN'S WORK—Continued.

Name.	Postoffice.	Awards.	Amount.
HAND SEWING WORK—AMATEUR—Concluded.			
Miss Nannie Hall.....	839 W. High St., Lexington, O	Best jabot.....	\$2 00
Miss Rachael M. Smith.....	Trinway, O., R. 1.....	2d best jabot.....	1 00
Mrs. Guy Titsworth.....	312 W. Broadway, Sedalia, Mo	Best collar and cuffs to match.....	2 00
Mrs. L. J. Housel.....	1305 Forsythe Ave., Columbus, O.....	2d best collar and cuffs to match.....	1 00

SHIRT · WAISTS—AMATEUR.

JUDGE, MRS. SOPHIE JOSEPH.

Premiums offered.....	\$44 00
Premiums paid.....	44 00
Entries.....	75

Name.	Postoffice.	Awards.	Amount.
Miss Mary Goddard.....	79 E. Capital, Columbus, O.....	Best eyelet embroidery.....	\$3 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington Ave., Van Wert, O.....	2d best eyelet embroidery.....	2 00
Mrs. Guy Titsworth.....	312 W. Broadway, Sedalia, Mo	Best lace and solid embroidery.....	3 00
Grace B. Matson.....	Ashtabula, O.....	2d best lace and solid embroidery.....	2 00
Mrs. Emma Gearhart.....	117 E. Crawford St., Van Wert, O.....	Best French embroidery.....	3 00
Mrs. Clara Fogle.....	Mt. Gilcard, O.....	2d best French embroidery.....	2 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington Ave., Van Wert, O.....	Best French and eyelet embroidery.....	3 00
Mrs. Emma Gearhart.....	117 Crawford St., Van Wert, O.....	2d best French and eyelet embroidery.....	2 00
Mrs. Emma Gearhart.....	117 Crawford St., Van Wert, O.....	Best braided.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	2d best braided.....	1 00
Grace B. Matson.....	Ashtabula, O.....	Best drawn work.....	2 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., Columbus, O.....	2d best drawn work.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best cross stitch work.....	2 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington Ave., Van Wert, O.....	2d best cross stitch work.....	1 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington Ave., Van Wert, O.....	Best fancy.....	3 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.....	2d best fancy.....	2 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.....	Best Irish crochet.....	3 00
Miss Louise Innis.....	1053 Madison Ave., Columbus, O.....	2d best Irish crochet.....	2 00
Mrs. Guy Titsworth.....	312 Broadway, Sedalia, Mo.....	Best punch work and Louis XIV combined.....	3 00
Mrs. W. B. Wolf.....	22 Augustine Ave., Mansfield, O	2b best punch work and Louis XIV combined.....	2 00

INFANTS' DEPARTMENT.

JUDGE, MRS. ANNA MAHER.

Premiums offered.....	\$48 00
Premiums paid.....	40 00
Entries.....	117

Name.	Postoffice.	Awards.	Amount.
Mrs. G. V. H. Saltzgaber.....	222½ Washington Ave., Van Wert, O.....	Best infant's robe and skirt embroidered.....	\$2 00
Mrs. L. J. Pulliam.....	1020 S. 7th St., Springfield, Ill.	2d best infant's robe and skirt embroidered.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best infant's bib embroidered.....	2 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.....	2d best infant's bib embroidered.....	1 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O	2d best embroidered Kimono, silk or cotton	1 00
Mrs. Guy Titsworth.....	312 Broadway, Sedalia, Mo.....	Best embroidered pillow, made up.....	2 00
Mrs. Marjorie Stillwell.....	634 Oak St., Columbus, O.....	2d best embroidered pillow, made up.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best embroidered carriage rug.....	2 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington Ave., Van Wert, O.....	2d best embroidered carriage rug.....	1 00
Mrs. G. A. Norrington.....	Linden Heights, O.....	Best baby's short dress, hand made.....	2 00
Mrs. L. J. Pulliam.....	1020 S. 7th St., Springfield, Ill.	2d best baby's short dress, hand made.....	1 00

WOMAN'S WORK—Continued.

Name.	Postoffice.	Awards.	Amount.
INFANTS' DEPARTMENT—Concluded.			
Low McIntyre.....	Columbus, O.....	Best baby's cap, crocheted.....	\$2 00
Mrs. Geo. Sands.....	217 Superior St., Kokomo, Ind.....	2d best baby's cap, crocheted.....	1 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.....	Best baby's cap, point lace.....	2 00
Mrs. L. A. Waggaman.....	217 W. Superior St., Kokomo, Ind.....	2d best baby's cap, point lace.....	1 00
Mrs. W. B. Kight.....	603 E. Town, Columbus, O.....	Best baby's cap, Irish crochet.....	2 00
Mrs. Golda Sorman.....	217 W. Superior St., Kokomo, Ind.....	2d best baby's cap, Irish crochet.....	1 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., Columbus, O.....	Best baby's shoes, hand made satin.....	2 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.....	2d best baby's shoes, hand made satin.....	1 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.....	Best flannel underskirt, hand made.....	2 00
Grace B. Matson.....	Ashtabula, O.....	2d best flannel underskirt, hand made.....	1 00
Mrs. George Sands.....	217 W. Superior St., Kokomo, Ind.....	Best crocheted or knitted sacque.....	2 00
M. F. Dunlop.....	West Grove, Pa.....	2d best crocheted or knitted sacque.....	1 00
Mrs. N. W. Florence.....	594 Franklin Ave., Columbus, O.....	Best crocheted or knitted wool booties.....	2 00
Mrs. W. H. Covault.....	Mechanicsburg, O.....	2d best crocheted or knitted wool booties.....	1 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.....	Best crocheted or knitted sweater.....	2 00
Grace B. Matson.....	Ashtabula, O.....	2d best crocheted or knitted sweater.....	1 00

CROSS STITCH EMBROIDERY—AMATEUR.

JUDGE, MRS. SOPHIE JOSEPH.

Premiums offered.....	\$21 00
Premiums paid.....	21 00
Entries.....	59

Name.	Postoffice.	Awards.	Amount.
Mrs. E. Buck.....	319 Arlington Ave., Lockland, O.....	Best table cover.....	\$2 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.....	2d best table cover.....	1 00
Mrs. Ed. Greiner.....	73 E. Williams St., Delaware, O.....	Best pin cushion.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.....	2d best pin cushion.....	50
Elsie Evans.....	77 E. 5th Ave., Columbus, O.....	Best book cover.....	2 00
Mrs. Ed. Greiner.....	73 E. Williams St., Delaware, O.....	2d best book cover.....	1 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.....	Best fancy bag.....	2 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington St., Van Wert, O.....	2d best fancy bag.....	1 00
Mrs. Dora Adams.....	London, O., R. 3.....	Best apron.....	2 00
Mrs. W. H. Covault.....	Mechanicsburg, O.....	2d best apron.....	1 00
Miss Nannie Hall.....	838 W. High, Lexington, Ky.....	Best shirt waist set.....	2 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.....	2d best shirt waist set.....	1 00
Miss Mary Goddard.....	78 E. Capital St., Columbus, O.....	Best pair towels.....	2 00
Mrs. L. A. Waggaman.....	217 Superior St., Kokomo, Ind.....	2d best pair towels.....	1 00
Mrs. L. C. Covault.....	Mechanicsburg, O.....	Best dresser cover.....	1 00
Grace B. Matson.....	Ashtabula, O.....	2d best dresser cover.....	50

COTTON OR LINEN EMBROIDERY—AMATEUR.

JUDGE, MRS. SOPHIE JOSEPH.

Premiums offered.....	\$108 00
Premiums paid.....	95 00
Entries.....	369

Name.	Postoffice.	Awards.	Amount.
Mrs. G. V. H. Saltzgaber.....	222½ S. Washington St., Van Wert, O.....	Best sheet.....	\$2 00
Mrs. Della Armstrong.....	Yellow Springs, O.....	2d best sheet.....	1 00
Mrs. A. C. Cook.....	Park and Short St., Marion, O.....	Best sheet and pillow cases to match.....	2 00
Mr. E. Buck.....	219 Arlington Ave., Lockland, O.....	2d best sheet and pillow cases to match.....	1 00

WOMAN'S WORK—Continued.

Name.	Postoffice.	Awards.	Amount.
COTTON OR LINEN EMBROIDERY—AMATEUR—Concluded.			
Mrs. Guy Titsworth.....	312 W. Broadway, Sedalia, Mo.	Best pair pillow cases.....	\$2 00
Mrs. L. A. Waggaman.....	217 W. Superior, Kokomo, Ind.	2d best pair pillow cases.....	1 00
Mrs. F. S. Shawaker.....	Coshocton, O.	Best side board scarf.....	2 00
Mrs. Guy Titsworth.....	312 W. Broadway, Sedalia, Mo.	2d best side board scarf.....	1 00
Mrs. Guy Titsworth.....	312 W. Broadway, Sedalia, Mo.	Best dresser set, scarf and pin cushion to match.....	2 00
Mrs. M. R. Beebe.....	19 N. Liberty St., Delaware, O.	2d best dresser set, scarf and pin cushion to match.....	1 00
Mrs. Clara Fogle.....	Mt. Gilead, O.	Best lunch cloth.....	2 00
Mrs. Guy Titsworth.....	312 W. Broadway, Sedalia, Mo.	2d best lunch cloth.....	1 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.	Best lunch set, one large, six small pieces.....	2 00
Louise Zunkeller.....	322 3d Ave., Dayton, Ky.	2d best lunch set, one large, six small pieces.....	1 00
Mrs. A. R. Young.....	828 S. Main St., Kenton, O.	Best table cloth.....	2 00
Mrs. Grace Biglow.....	Plain City, O.	2d best table cloth.....	1 00
Mrs. G. V. H. Saltzgaber.....	222½ S. Washington St., Van Wert, O.	Best dinner napkins, six initial and embroidery.....	2 00
Mrs. Emma A. Gearhart.....	117 E. Crawford St., Van Wert, O.	2d best dinner napkins, six initial and embroidery.....	1 00
Mrs. Geo. Sands.....	217 W. Superior St., Kokomo, Ind.	Best dinner napkins, six, scalloped.....	2 00
Louise Zunkeller.....	322 3d Ave., Dayton, Ky.	2d best dinner napkins, six, scalloped.....	1 00
Mrs. Clara Fogle.....	Mt. Gilead, O.	Best centerpiece.....	2 00
Mrs. Fred M. Killets.....	2492 Findlay Ave., Columbus, O.	2d best centerpiece.....	1 00
Mrs. Clara Fogle.....	Mt. Gilead, O.	Best doilies, six.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	2d best doilies, six.....	1 00
Mrs. L. Miller.....	706 E. Market, Washington C. H., O.	Best tray cloth.....	2 00
Mrs. Clara Fogle.....	Mt. Gilead, O.	2d best tray cloth.....	1 00
Mrs. F. C. McGaughy.....	658 W. Main St., Galion, O.	Best fancy apron.....	2 00
Bessie H. Todhunter.....	1731 Summit St., Columbus, O.	2d best fancy apron.....	1 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.	Best parasol.....	2 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.	2d best parasol.....	1 00
Mrs. M. A. Beebe.....	19 N. Liberty, Delaware, O.	Best Dutch collar.....	2 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., Columbus, Ohio.	2d best Dutch collar.....	1 00
Mrs. R. P. Hain.....	1749 N. Fourth, Columbus, O.	Best corset cover.....	2 00
Mrs. W. H. Covault.....	Mechanicsburg, O.	2d best corset cover.....	1 00
Mrs. Guy Titsworth.....	312 W. Broadway, Sedalia, Mo.	Best monogram.....	2 00
Mrs. R. P. Hain.....	1749 N. 4th St., Columbus, O.	2d best monogram.....	1 00
Mrs. Louise Innis.....	1053 Madison Ave., Columbus, Ohio.	Best shirt waist set.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	2d best shirt waist set.....	1 00
Amelia D. Covault.....	Mechanicsburg, O.	Best bed set, 4 pieces.....	2 00
Mrs. Guy Titsworth.....	312 W. Broadway, Sedalia, Mo.	Best suit undergarments, 3 pieces.....	2 00
Louise Zunkeller.....	322 3d Ave., Dayton, Ky.	2d best suit undergarments, 3 pieces.....	1 00
Mrs. Clara Fogle.....	Mt. Gilead, O.	Best specimen French.....	2 00
Mrs. M. R. Beebe.....	19 N. Liberty St., Delaware, O.	2d best specimen French.....	1 00
Elsie Evans.....	77 E. 5th Ave., Columbus, O.	Best specimen Bermuda Faggoting.....	2 00
Mrs. Marjorie Stilwell.....	634 Oak St., Columbus, O.	2d best specimen Bermuda Faggoting.....	1 00
Mrs. Guy Titsworth.....	312 W. Broadway, Sedalia, Mo.	Best specimen Mountmellick.....	2 00
Miss Alice Vorheis.....	19 N. Liberty St., Delaware, O.	2d best specimen Mountmellick.....	1 00
Miss Elizabeth Leigh.....	Groveport, O.	Best specimen Hedebo.....	2 00
Mrs. Guy Titsworth.....	312 W. Broadway, Sedalia, Mo.	2d best specimen Hedebo.....	1 00
Miss Mary Goddard.....	78 E. Capital, Columbus, O.	Best specimen cut work.....	2 00
Low McIntyre.....	Columbus, O.	2d best specimen cut work.....	1 00
Mrs. L. E. Miller.....	706 E. Market St., Washington C. H., O.	Best specimen Coronation Cord.....	2 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.	2d best specimen Coronation Cord.....	1 00
Mrs. R. P. Hain.....	1749 N. 4th St., Columbus, O.	Best specimen Wallachian.....	2 00
Mrs. Golda Sorman.....	217 W. Superior St., Kokomo, Ind.	2d best specimen Wallachian.....	1 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.	Best specimen Lazy Daisy.....	2 00
Mrs. G. E. Brittan.....	900 Manhattan Ave., Dayton, Ohio.	2d best specimen Lazy Daisy.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	Best specimen Punch or Rhodes.....	2 00
Mrs. Clara Fogle.....	Mt. Gilead, O.	2d best specimen Punch or Rhodes.....	1 00
Mrs. O. J. Miller.....	Mt. Gilead, O.	Best specimen Venetian ladder work.....	2 00
Elsie Evans.....	77 E. 5th Ave., Columbus, O.	2d best specimen Venetian ladder work.....	1 00
Harriet Voll.....	Circleville, O.	Best specimen Repousse embroidery.....	2 00
Harriet Voll.....	Circleville, O.	2d best specimen Repousse embroidery.....	1 00

WOMAN'S WORK—Continued.
EYELET EMBROIDERY—AMATEUR.

JUDGE, MRS. SOPHIE JOSEPH.

Premiums offered.....		\$50 00
Premiums paid.....		47 00
Entries.....	116	

Name.	Postoffice.	Awards.	Amount.
Mrs. M. W. Jennings.....	4232 Delaney St., Concinnati, Ohio.	Best lunch set, one large, six small.....	\$2 00
Miss Alice Vorheis.....	19 N. Liberty St., Delaware, O.	Best centerpiece.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	2d best centerpiece.....	1 00
Miss Mary Goddard.....	78 E. Capital St., Columbus, O.	Best dollie, six.....	2 00
Mrs. M. A. Beebe.....	19 N. Liberty St., Delaware, O.	2d best dollies, six.....	1 00
Amelia D. Covault.....	Mechanicsburg, O.	Best tray cloth.....	2 00
Mrs. M. R. Beebe.....	19 N. Liberty St., Delaware, O.	2d best tray cloth.....	1 00
Mrs. Guy Titsworth.....	312 Broadway, Sedalia, Mo.	Best lunch cloth.....	2 00
Amelia D. Covault.....	Mechanicsburg, O.	2d best lunch cloth.....	1 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington St., Van Wert, O.	Best sideboard cover.....	2 00
Miss Alice Vorheis.....	19 N. Liberty St., Delaware, O.	2d best sideboard cover.....	1 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington St., Van Wert, O.	Best parasol.....	2 00
Mrs. Geo. Sands.....	217 W. Superior St., Kokomo, Ind.	Best corset cover.....	2 00
Mrs. L. J. Housel.....	1305 Forsthe Ave., Columbus, Ohio.	2d best corset cover.....	1 00
Miss Alice Vorheis.....	19 W. Liberty St., Delaware, O.	Best cape collar.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	Best collar and cuffs.....	2 00
Mrs. L. A. Waggaman.....	217 W. Superior St., Kokomo, Ind.	2d best collar and cuffs.....	1 00
Amelia D. Covault.....	Mechanicsburg, O.	Best belt.....	2 00
Mrs. W. S. Russell.....	485 Allyn St., Akron, O.	2d best belt.....	1 00
Mrs. E. Buck.....	219 Arlington Ave., Lockland, Ohio.	Best jabot.....	2 00
Mrs. Goldie Sorman.....	Kokomo, Ind.	2d best jabot.....	1 00
Mrs. G. V. H. Saltzgaber.....	222½ S. Washington St., Van Wert, O.	Best hat.....	2 00
Mrs. W. H. Covault.....	Mechanicsburg, O.	2d best hat.....	1 00
Mrs. G. V. H. Saltzgaber.....	222½ S. Washington St., Van Wert, O.	Best pair pillow cases, monogram eyelet and solid embroidery combined.....	2 00
Mrs. Francis S. Peck.....	1389 Forsythe Ave., Columbus, O.	2d best pair pillow cases, monogram, eyelet and solid embroidery combined.....	1 00
Mrs. Marjorie Stillwell.....	604 Oak St., Columbus, O.	Best specimen.....	2 00
Mrs. G. V. H. Saltzgaber.....	222½ S. Washington St., Van Wert, O.	2d best specimen.....	1 00
Mrs. G. V. H. Saltzgaber.....	222½ S. Washington St., Van Wert, O.	Best display.....	3 00
Mrs. W. E. Wilder.....	Columbus, O.	2d best display.....	2 00

HARDANGER EMBROIDERY—AMATEUR.

JUDGE, MRS. ANNA MAHER.

Premiums offered.....		\$18 00
Premiums paid.....		18 00
Entries.....	29	

Name.	Postoffice.	Awards.	Amount.
Amelia D. Covault.....	Mechanicsburg, O.	Best dresser cover.....	\$2 00
Mrs. E. Buck.....	219 Arlington Ave., Lockland, Ohio.	2d best dresser cover.....	1 00
Mrs. Clara Fogle.....	Mt. Gilead.....	Best table cover.....	2 00
Mrs. L. E. Miller.....	706 E. Market St., Washington C. H., O.	2d best table cover.....	1 00
Mrs. Mary Harps.....	1315 N. Beville Ave., Indianapolis, Ind.	Best centerpiece in white.....	2 00
Mrs. Clara Fogle.....	Mt. Gilead, O.	2d best centerpiece in white.....	1 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.	Best centerpiece in colors.....	2 00
Amelia D. Covault.....	Mechanicsburg, O.	2d best centerpiece in colors.....	1 00
Mrs. F. W. Jennings.....	61 W. 11th St., Columbus, O.	Best collar and cuffs.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	2d best collar and cuffs.....	1 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.	Best specimen.....	2 00
Mrs. F. M. Brownwell.....	1626 Pembroke, Columbus, O.	2d best specimen.....	1 00

WOMAN'S WORK—Continued.
DRAWN WORK—AMATEUR.

JUDGE, MRS. SOPHIE JOSEPH.

Premiums offered.....\$46 00
Premiums paid.....41 00
Entries.....93

Name.	Postoffice.	Awards.	Amount.
Mrs. G. V. H. Saltzgaber.....	222½ S. Washington Ave., Van Wert, O.	Best table cloth.....	\$2 00
Mrs. H. W. Boror.....	129 W. 5th Ave., Columbus, O.	2d best table cloth.....	1 00
Mrs. Grace Biglow.....	Plain City.....	Best lunch cloth.....	2 00
Mrs. B. F. Sampson.....	1103 Penna. Ave., Columbus, O.	2d best lunch cloth.....	1 00
Grace B. Matson.....	Ashtabula, O.....	Best centerpiece.....	2 00
Harriet Voll.....	Circleville, O.....	2d best centerpiece.....	1 00
Mrs. L. C. Covault.....	Mechanicsburg, O.....	Best tray cloth.....	2 00
Mrs. W. H. Covault.....	Mechanicsburg, O.....	2d best tray cloth.....	1 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.	Best six napkins.....	2 00
Mrs. Guy Titsworth.....	312 Broadway, Sedalia, Mo.....	2d best six napkins.....	1 00
Mrs. Fred M. Killets.....	2492 Findlay St., Columbus, O.	Best dresser cover.....	2 00
Mrs. J. S. Wrinkle.....	1257 E. Long St., Columbus, O.	2d best dresser cover.....	1 00
Mrs. Clara Fogle.....	Mt. Gilead, O.....	Best pair towels.....	2 00
Mrs. A. C. Eggert.....	1305 Forsythe, Columbus, O.....	2d best pair towels.....	1 00
Mrs. W. H. Covault.....	Mechanicsburg, O.....	Best six doilies.....	2 00
Mrs. Guy Titsworth.....	312 W. Broadway, Sedalia, Mo.	2d best six doilies.....	1 00
Amelia D. Covault.....	Mechanicsburg, O.....	Best pair pillow cases.....	2 00
Miss Mary Goddard.....	78 E. Capital, Columbus, O.....	2d best pair pillow cases.....	1 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington St., Van Wert, O.	Best sheet.....	2 00
Mrs. F. C. McGaughy.....	658 W. Frambes, Columbus, O.	2d best sheet.....	1 00
Miss Elizabeth Leigh.....	Groveport, O.....	Best specimen hemstitching.....	2 00
Miss Mary Goddard.....	78 E. Capital St., Columbus, O.	2d best specimen hemstitching.....	1 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., Columbus, O.....	Best curtains.....	3 00
Mrs. L. J. Housel.....	1305 Forsythe Ave., Columbus, O.....	2d best curtains.....	2 00
Mrs. L. J. Housel.....	1305 Forsythe Ave., Columbus, O.....	Best spread.....	3 00

SILK EMBROIDERY—AMATEUR.

JUDGE, MRS. ANNA MAHER.

Premiums offered.....\$38 00
Premiums paid.....38 00
Entries.....110

Name.	Postoffice.	Awards.	Amount.
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best lunch cloth.....	\$2 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.	2d best lunch cloth.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best centerpiece.....	2 00
Mrs. L. E. Miller.....	706 E. Market St., Washington C. H., O.	2d best centerpiece.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best tray cloth.....	2 00
Mrs. E. Buck.....	219 Arlington Ave., Lockland, O.	2d best tray cloth.....	1 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.	Best table cover.....	2 00
Mrs. Margaret Patterson.....	1097 S. High St., Columbus, O.	2d best table cover.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best six doilies, one size.....	2 00
Mrs. Clara Fogle.....	Mt. Gilead, O.....	2d best six doilies, one size.....	1 00
Mrs. Thomas W. Brown.....	Circleville, O.....	Best picture frame.....	2 00
Mrs. Marjorie Stillwell.....	634 Oak St., Columbus, O.	2d best picture frame.....	1 00
Mrs. F. C. McGaughy.....	658 W. Main St., Galion, O.	Best fancy bag in colors.....	2 00
Mrs. Guy Titsworth.....	312 W. Broadway, Sedalia, Mo.	2d best fancy bag in colors.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best side board cover.....	2 00
Mrs. Margaret Patterson.....	1097 S. High St., Columbus, O.	2d best side board cover.....	1 00
Mrs. W. C. Covault.....	Mechanicsburg, O.....	Best specimen Roman embroidery.....	2 00
Mrs. E. Buck.....	219 Arlington Ave., Lockland, O.	2d best specimen Roman embroidery.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky	Best specimen delft embroidery.....	2 00
Mrs. E. Buck.....	219 Arlington Ave., Lockland, O.	2d best specimen delft embroidery.....	1 00

WOMAN'S WORK—Continued.

Name.	Postoffice.	Awards.	Amount.
SILK EMBROIDERY—AMATEUR—Concluded.			
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	Best specimen Kensington embroidery.....	\$2 00
Mrs. Ed. Greiner.....	73 E. Williams St., Delaware, Ohio.	2d best specimen Kensington embroidery.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	Best display 3 pieces.....	3 00
Miss Alice Vorheis.....	19 N. Liberty St., Delaware, O.	2d best display 3 pieces.....	2 00

IRISH CROCHET—AMATEUR.

JUDGE, MRS. SOPHIE JOSEPH.

Premiums offered.....	\$45 00
Premiums paid.....	44 00
Entries.....	166

FILET CROCHET.

Premiums offered.....	\$23 00
Premiums paid.....	8 00
Entries.....	14

Name.	Postoffice.	Awards.	Amount.
Mrs. Geo. Elliott.....	185 E. Town St., Columbus, O.	Best band for hat.....	\$2 00
Mrs. W. B. Kight.....	603 E. Town St., Columbus, O.	2d best band for hat.....	1 00
Mrs. L. P. Warman.....	2727 Harris Ave., Norwood, O.	Best fuchia tie.....	1 00
Mrs. R. M. Foster.....	Waverly, O., R. 3.....	2d best fuchia tie.....	50
Mrs. A. W. Phelps.....	442 W. 6th Ave., Columbus, O.	Best belt buckle.....	1 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., Columbus, O.	2d best belt buckle.....	50
Mrs. A. W. Phelps.....	442 W. 6th Ave., Columbus, O.	Best collar pin.....	1 00
Mrs. W. H. Covault.....	Mechanicsburg, O.	2d best collar pin.....	50
Grace B. Matson.....	Astabula, O.	Best jabot.....	1 00
Miss Mary Goddard.....	78 E. Capital St., Columbus, O.	2d best jabot.....	50
Mrs. W. B. Kight.....	603 E. Town St., Columbus, O.	Best collar.....	2 00
Mrs. G. E. Brittan.....	900 Manhattan Ave., Dayton, Ohio.	2d best collar.....	1 00
Mrs. L. J. House.....	1305 Forsythe Ave., Columbus, O.	Best candle or lamp shade.....	2 00
Mrs. E. Buck.....	219 Arlington Ave., Lockland, O.	Best collar and cuffs to match.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	2d best collar and cuffs to match.....	1 00
Mrs. W. B. Kight.....	603 E. Town St., Columbus, O.	Best yoke.....	2 00
Mrs. F. W. Jennings.....	61 W. 11th Ave., Columbus, O.	2d best yoke.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	Best edging, not less than 2 yards.....	2 00
Mrs. L. C. Covault.....	Mechanicsburg, O.	2d best edging, not less than 2 yards.....	1 00
Mrs. W. B. Kight.....	603 E. Town St., Columbus, O.	Best insertion, not less than 2 yards.....	2 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.	2d best insertion, not less than 2 yards.....	1 00
Mrs. Geo. Elliott.....	185 E. Town St., Columbus, O.	Best purse (coin).....	2 00
Miss Flora B. George.....	603 E. Town St., Columbus, O.	2d best purse (coin).....	1 00
Mrs. W. B. Kight.....	603 E. Town St., Columbus, O.	Best bag.....	2 00
Miss Flora B. George.....	603 E. Town St., Columbus, O.	2d best bag.....	1 00
Miss Flora B. George.....	603 E. Town St., Columbus, O.	Best medallions.....	2 00
Mrs. E. Buck.....	219 Arlington Ave., Columbus, O.	2d best medallions.....	1 00
Mrs. W. B. Kight.....	603 E. Town St., Columbus, O.	Best motifs.....	2 00
Miss Flora B. George.....	219 Arlington Ave., Lockland, Ohio.	2d best motifs.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	Best half dozen table mats, same size.....	2 00
Miss Lenna Jones.....	193 W. Main St., Westerville, O.	2d best half dozen table mats, same size.....	1 00
Mrs. G. V. H. Saltzgeber.....	222 1/2 S. Washington St., Van Wert, O.	Best specimen.....	2 00
Mrs. Wm. Payne.....	1021 Hunter Ave., Columbus, O.	2d best specimen.....	1 00
Mrs. A. W. Phelps.....	442 W. 6th Ave., Columbus, O.	Best scarf.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	Best bed spread.....	3 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	Best specimen.....	2 00
Mrs. L. C. Covault.....	Mechanicsburg, O.	2d best specimen.....	1 00

WOMAN'S WORK—Continued.

BATTENBURG LACE—AMATEUR.

JUDGE, MRS. ANNA MAHER.

Premiums offered.....\$39 00
 Premiums paid.....31 00
 Entries.....55

Name.	Postoffice.	Awards.	Amount.
Mrs. R. T. McClure.....	324 N. Hinde St., Washington C. H., O.....	Best curtains.....	\$3 00
Grace B. Matson.....	Ashtabula, O.....	Best piano cover.....	3 00
Mrs. Geo. B. Sands.....	217 W. Superior St., Kokomo, Ind.....	2d best piano cover.....	2 00
Mrs. D. S. Morgan.....	818 Park St., Columbus, O.....	Best table cover.....	3 00
Mrs. Golda Lorman.....	217 W. Superior St., Kokomo, Ind.....	2d best table cover.....	2 00
Mrs. G. V. H. Saltzgaber.....	222½ S. Washington St., Van Wert, O.....	Best centerpiece.....	2 00
Mrs. O. J. Miller.....	Mt. Gilead, O.....	2d best centerpiece.....	1 00
Mrs. Clara Fogle.....	Mt. Gilead, O.....	Best six doilies.....	2 00
Mrs. Geo. Sands.....	217 W. Superior St., Kokomo, Ind.....	2d best six doilies.....	1 00
Mrs. G. V. H. Saltzgaber.....	222½ S. Washington St., Van Wert, O.....	Best large collar—silk.....	2 00
Mrs. O. J. Miller.....	Mt. Gilead, O.....	2d best large collar—silk.....	1 00
Harriet Voll.....	Circleville, O.....	Best hat.....	2 00
Helen Davies.....	173 Third St., Ironton, O.....	Best parasol.....	2 00
Mrs. O. J. Miller.....	Mt. Gilead, O.....	Best dress garniture.....	2 00
Mrs. G. V. H. Saltzgaber.....	222½ S. Washington St., Van Wert, O.....	Best specimen.....	2 00
Mrs. A. W. Phelps.....	442 W. 6th Ave., Columbus, O.....	2d best specimen.....	1 00

POINT LACE—AMATEUR.

JUDGE, MRS. ANNA MAHER.

Premiums offered.....\$30 00
 Premiums paid.....25 00
 Entries.....45

Name.	Postoffice.	Awards.	Amount.
Mrs. Roy T. McClure.....	324 N. Hinde St., Washington C. H., O.....	Best large collar.....	\$2 00
Mrs. O. J. Miller.....	Mt. Gilead, O.....	2d best large collar.....	1 00
Mrs. D. F. Morgan.....	818 Park St., Columbus, O.....	Best yoke.....	2 00
Mrs. O. J. Miller.....	Mt. Gilead, O.....	2d best yoke.....	1 00
Mrs. A. W. Phelps.....	442 W. 6th St., Columbus, O.....	Best dress garniture.....	2 00
Mrs. O. J. Miller.....	Mt. Gilead, O.....	2d best dress garniture.....	1 00
Mrs. Guy Titsworth.....	312 W. Broadway, Sedalia, Mo.....	Best collar.....	2 00
Mrs. O. J. Miller.....	Mt. Gilead, O.....	2d best collar.....	1 00
Mrs. N. W. Florence.....	594 Franklin Ave., Columbus, O.....	Best jabot.....	2 00
Mrs. A. W. Phelps.....	442 W. 6th Ave., Columbus, O.....	2d best jabot.....	1 00
Mrs. O. J. Miller.....	Mt. Gilead, O.....	Best collar and cuffs to match.....	2 00
Mrs. D. F. Morgan.....	818 Park St., Columbus, O.....	Best tie ends.....	2 00
Mrs. A. W. Phelps.....	442 W. 6th Ave., Columbus, O.....	2d best tie ends.....	1 00
Mrs. O. J. Miller.....	Mt. Gilead, O.....	Best specimen point applique.....	2 00
Mrs. A. W. Phelps.....	442 W. 6th Ave., Columbus, O.....	Best specimen.....	2 00
Mrs. O. J. Miller.....	Mt. Gilead, O.....	2d best specimen.....	1 00

WOMAN'S WORK—Continued.
LACE AND TATTING—AMATEUR.

JUDGE, MRS. ANNA MAHER.

LACE.

Premiums offered.....		\$21 00
Premiums paid.....		12 00
Entries.....	18	

TATTING.

Premiums offered.....		\$25 50
Premiums paid.....		25 50
Entries.....	76	

Name.	Postoffice.	Awards.	Amount.
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LACE.

Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.	Best specimen Marie Antoinette.....	\$2 00
Mrs. A. W. Phelps.....	446 W. 6th Ave., Columbus, O.	Best specimen Duchess.....	1 00
Grace B. Matson.....	Ashtabula, O.	2d best specimen Duchess.....	1 00
Mrs. O. J. Miller.....	Mt. Gilead, O.	Best specimen Houston.....	1 00
Mrs. A. W. Phelps.....	442 W. 6th Ave., Columbus, O.	2d best specimen Houston.....	1 00
Grace B. Matson.....	Ashtabula, O.	Best specimen netting.....	1 00
Mrs. G. E. Brittian.....	900 Manhattan Ave., Dayton, O.	2d best specimen netting.....	1 00
Grace B. Matson.....	Ashtabula, O.	2d best specimen bobbin.....	1 00

TATTING.

Mrs. W. H. Covault.....	Mechanicsburg, O.	Best tie ends.....	\$2 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.	2d best tie ends.....	1 00
Mrs. Sarah E. Richey.....	1495½ E. Main St., Columbus, O.	Best jabot.....	1 00
Mrs. Frances Peck.....	1369 Forsythe Ave., Columbus, Ohio.	2d best jabot.....	50
Mrs. Ettie Johnson.....	N. Barrow St., Eaton, O.	Best hat band.....	2 00
Mrs. Sarah E. Richey.....	1495½ E. Main St., Columbus, O.	2d best hat band.....	1 00
Mrs. Sarah E. Richey.....	1495½ E. Main St., Columbus, O.	Best collar and cuffs.....	2 00
Mrs. Etta Johnson.....	N. Barrow St., Eaton, O.	2d best collar and cuffs.....	1 00
Mrs. Etta Johnson.....	N. Barrow St., Eaton, O.	Best six doilies.....	2 00
Mrs. W. L. Russell.....	485 Allyn St., Akron, O.	2d best six doilies.....	1 00
Mrs. Sarah E. Richey.....	1495½ E. Main St., Columbus, O.	Best yoke.....	2 00
Mrs. Ettie Johnson.....	N. Barrow St., Eaton, O.	2d best yoke.....	1 00
Mrs. Frank F. Frasier.....	53 Euclid Ave., Columbus, O.	Best bag.....	2 00
Mrs. J. L. Leist.....	130 E. 11th Ave., Columbus, O.	2d best bag.....	1 00
Mrs. Sarah E. Richey.....	1495½ E. Main St., Columbus, O.	Best medallions.....	2 00
Mrs. G. V. H. Saltzgeber.....	222½ S. Washington, Van Wert, O.	2d best medallions.....	1 00
Mrs. W. H. Covault.....	Mechanicsburg, O.	Best specimen.....	2 00
Mrs. C. J. Rockey.....	Mt. Vernon, O.	2d best specimen.....	1 00

FANCY WORK—AMATEUR.

JUDGE, MRS. ANNA MAHER.

Premiums offered.....		\$36 00
Premiums paid.....		36 00
Entries.....	109	

Name.	Postoffice.	Awards.	Amount.
Mrs. W. B. Wolf.....	22 Augustine Ave., Mansfield, Ohio.	Best collar and cuff set.....	\$2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	2d best collar and cuff set.....	1 00
Mrs. W. H. Covault.....	Mechanicsburg, O.	Best lady's belt.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	2d best lady's belt.....	1 00
Fannie Fearn.....	Groveport, O.	Best pin cushion.....	2 00
Mrs. Geo. Sands.....	217 W. Superior St., Kokomo, Ind.	2d best pin cushion.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	Best glove case.....	2 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.	2d best glove case.....	1 00
Fannie Fearn.....	Groveport, O.	Best book cover.....	2 00
Miss Mary Godard.....	78 E. Capital St., Columbus, O.	2d best book cover.....	1 00

WOMAN'S WORK—Continued.

Name.	Postoffice.	Awards.	Amount.
FANCY WORK—AMATEUR—Concluded.			
Mrs. W. E. Wilder.....	771 N. High St., Columbus, O.	Best fancy work bag.....	\$2 00
Elsie Evans.....	77 E. 5th Ave., Columbus, O.	2d best fancy work bag.....	1 00
Fannie Fearn.....	Groveport, O.	Best party bag.....	2 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., Columbus, O.	2d best party bag.....	1 00
Mrs. W. L. Holton.....	Springfield, O.	Best opera bag.....	2 00
Mrs. Geo. Sands.....	217 W. Superior St., Kokomo, Ind.	2d best opera bag.....	1 00
Mrs. W. B. Wolff.....	22 Augustine Ave., Mansfield, Ohio.	Best shopping bag.....	2 00
Amelia D. Covault.....	Mechanicsburg, O.	2d best shopping bag.....	1 00
Mrs. G. E. Brittan.....	900 Manhattan Ave., Dayton, Ohio.	Best laundry bag.....	2 00
Mrs. Z. A. Herrington.....	Coshocton, O.	2d best laundry bag.....	1 00
Miss Alice Vorheis.....	19 N. Liberty St., Delaware, O.	Best magazine cover.....	2 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., Columbus, O.	2d best magazine cover.....	1 00
Carrie F. Mosteller.....	120 Elmwood Ave., Newark, O.	Best scrap basket.....	2 00
Mrs. Z. S. Herrington.....	Coshocton, O.	2d best scrap basket.....	1 00

ART NEEDLE WORK—AMATEUR.

JUDGE, MRS. SOPHIE JOSEPH.

Premiums offered.....	\$98 00
Premiums paid.....	83 00
Entries.....	215

Name.	Postoffice.	Awards.	Amount.
Mrs. Guy Titworth.....	312 W. Broadway, Sedalia, Mo.	Best dress—hand embroidered.....	\$2 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington St., Van Wert, O.	2d best dress—hand embroidered.....	1 00
Mrs. G. V. H. Saltzgaber.....	222½ Washington St., Van Wert, O.	Best stockings.....	2 00
Mrs. L. C. Covault.....	Mechanicsburg, O.	2d best stockings.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	Best six collars.....	2 00
Mrs. W. H. Covault.....	Mechanicsburg, O.	2d best six collars.....	1 00
Mrs. C. L. Covault.....	Mechanicsburg, O.	Best specimen Reticella.....	2 00
Mrs. Clara Fogle.....	Mt. Gilead, O.	Best tray cloth.....	2 00
Amelia D. Covault.....	Mechanicsburg, O.	2d best tray cloth.....	1 00
Mrs. W. M. Jennings.....	4232 Delaney St., Cincinnati, O.	Best centerpiece (24 inches).....	2 00
Mrs. O. J. Miller.....	Mt. Gilead, O.	2d best centerpiece (24 inches).....	1 00
Fannie Fearn.....	Groveport, O.	Best centerpiece (18 inches).....	2 00
Miss Alice Vorheis.....	19 N. Liberty St., Delaware, O.	2d best centerpiece (18 inches).....	1 00
Mrs. G. V. H. Saltzgaber.....	222½ W. Washington St., Van Wert, O.	Best centerpiece, lace and embroidery.....	2 00
Mrs. L. E. Miller.....	Washington C. H., O.	2d best centerpiece, lace and embroidery.....	1 00
Mrs. Clara Fogle.....	Mt. Gilead, O.	Best lunch cloth.....	2 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.	2d best lunch cloth.....	1 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	Best six 12 inch doilies.....	2 00
Mrs. C. L. Crippen.....	27 E. 7th Ave., Columbus, O.	2d best six 12 inch doilies.....	1 00
Fannie Fearn.....	Groveport, O.	Best sideboard cover.....	2 00
Miss Elizabeth Leigh.....	Groveport, O.	2d best sideboard cover.....	1 00
Mrs. C. L. Rocky.....	Mt. Vernon, O.	Best handkerchief case.....	2 00
Elsie Evans.....	77 E. 5th Ave., Columbus, O.	2d best handkerchief case.....	1 00
Mrs. G. E. Brittan.....	900 Manhattan Ave., Dayton, O.	Best glove case.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.	2d best glove case.....	1 00
Mrs. E. Buck.....	219 Arlington Ave., Lockland, O.	Best book cover.....	2 00
Mrs. M. W. Jennings.....	4232 Delaney Ave., Cincinnati, O.	2d best book cover.....	1 00
Mrs. L. J. Housel.....	1305 Forsythe Ave., Columbus, O.	Best magazine cover.....	2 00
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.	2d best magazine cover.....	1 00
Mrs. L. E. Miller.....	706 E. Market St., Washington C. H., O.	Best centerpiece, brown linen in colors.....	2 00
Mrs. Guy Titworth.....	312 W. Broadway, Sedalia, Mo.	2d best centerpiece, brown linen in colors.....	1 00
Mrs. R. M. Foster.....	Waverly, O., R. 3.	Best specimen Fluffe embroidery.....	2 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.	2d best specimen Fluffe embroidery.....	1 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.	2d best specimen Mousseline.....	1 00

WOMAN'S WORK—Continued.

Name.	Postoffice.	Awards.	Amount.
ART NEEDLE WORK—AMATEUR—Concluded.			
Mrs. Z. L. Herrington.....	Coshocton, O.....	Best specimen Rambler Rose.....	\$2 00
Mrs. Clara Fogle.....	Mt. Gilead, O.....	2d best specimen Rambler Rose.....	1 00
Mrs. Marjorie Stillwell.....	634 Oak St., Columbus, O.....	Best specimen Aster.....	2 00
Mrs. R. M. Foster.....	Waverly, O., R. 3.....	2d best specimen Aster.....	1 00
Mrs. G. E. Brittan.....	900 Manhattan Ave., Day- ton, O.....	Best specimen ribbon.....	2 00
Amelia D. Covault.....	Mechanicsburg, O.....	2d best specimen ribbon.....	1 00
Mrs. M. R. Beebe.....	19 N. Liberty St., Delaware, O.....	Best specimen jewel.....	2 00
Miss Alice Vorheis.....	19 N. Liberty St., Delawa O.....	2d best specimen jewel.....	1 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood O.....	Best specimen Roman.....	2 00
Miss Elizabeth Leigh.....	Groveport, O.....	2d best specimen Roman.....	1 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.....	Best specimen featherstitch.....	2 00
Miss Nannie Hall.....	838 W. High St., Lexington, Ky.....	2d best specimen featherstitch.....	1 00
Miss Elizabeth Leigh.....	Groveport, O.....	Best specimen darned net.....	2 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.....	2d best specimen darned net.....	1 00
Mrs. L. P. Warman.....	900 Manhattan, Dayton, O.....	Best specimen net applique.....	2 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.....	2d best specimen net applique.....	1 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.....	Best set English smoking.....	2 00
Mrs. M. R. Beebe.....	19 N. Liberty St., Delaware, O.....	Best specimen Biederneier.....	2 00
Mrs. Clara Fogle.....	Mt. Gilead, O.....	2d best specimen Biederneier.....	1 00
Mrs. G. V. H. Saltzgaber.....	222½ S. Washington Ave., Van Wert, O.....	Best specimen Bulgarian.....	2 00
Mrs. O. J. Miller.....	Mt. Gilead, O.....	2d best specimen Bulgarian.....	1 00

COUCH PILLOWS—MADE UP.

JUDGE, MRS. F. JOSEPH.

Premiums offered.....	\$33 00
Premiums paid.....	28 00
Entries.....	75

Name.	Postoffice.	Awards.	Amount.
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.....	Best hand needle work, fancy.....	\$2 00
Mrs. Frances Peck.....	1369 Forsythe Ave., Columbus, Ohio.....	2d best hand needle work, fancy.....	1 00
Miss Nellie Carson.....	70 University Ave., Delaware, O.....	Best cross stitch embroidery.....	2 00
Mrs. Wm. Welch.....	2339 Broadway, Indianapolis, Ind.....	2d best cross stitch embroidery.....	1 00
Mrs. R. P. Carter.....	150 S. Ogden Ave., Columbus, Ohio.....	Best hardanger embroidery.....	2 00
Mrs. W. L. Russell.....	485 Allyn St., Akron, O.....	Best drawn work.....	2 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., Columbus, Ohio.....	2d best drawn work.....	1 00
Mrs. Chas. Higgins.....	1257 E. Long St., Columbus, O.....	Best French embroidery.....	2 00
Mrs. F. C. McGaughy.....	658 W. Main St., Galion, O.....	Best eyelet embroidery.....	2 00
Mrs. G. V. H. Saltzgaber.....	222½ S. Washington St., Van Wert, O.....	2d best eyelet embroidery.....	1 00
Mrs. G. V. H. Saltzgaber.....	222½ S. Washington St., Van Wert, O.....	Best silk embroidery.....	2 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.....	2d best silk embroidery.....	1 00
Mrs. L. J. Pulliam.....	1020 S. 7th St., Springfield, Ill.....	Best crocheted.....	2 00
Mrs. Z. S. Herrington.....	Coshocton, O.....	2d best crocheted.....	1 00
Harriet Voll.....	Circleville, O.....	Best Fraternity.....	2 00
Mrs. G. V. H. Saltzgaber.....	222½ S. Washington St., Van Wert, O.....	2d best Fraternity.....	1 00
Fannie Fearn.....	Groveport, O.....	Best decorative art.....	2 00
Miss Mary Godard.....	78 E. Capital St., Columbus, O.....	2d best decorative art.....	1 00

WOMAN'S WORK—Continued.
HANDKERCHIEFS AND BAGS.

JUDGE, MRS. SOPHIE JOSEPH.

HANDKERCHIEFS.

Premiums offered.....		\$15 00
Premiums paid.....		14 50
Entries.....	112	

BAGS—HAND-MADE.

Premiums offered.....		\$36 00
Premiums paid.....		33 00
Entries.....	97	

Name.	Postoffice.	Awards.	Amount.
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HANDKERCHIEFS.

Mrs. G. V. H. Saltzgeber.....	222½ S. Washington St., Van Wert, O.	Best point lace.....	\$1 00
Mrs. O. J. Miller.....	Mt. Gilead, O.	2d best point lace.....	50
Mrs. Louis Innis.....	1053 Madison Ave., Columbus, Ohio	Best drawn work.....	1 00
Mrs. W. E. Wilder.....	771 N. High St., Columbus, O.	2d best drawn work.....	50
Low McIntyre.....	Columbus, O.	Best scalloped.....	1 00
Fannie Fearn.....	Groveport, O.	2d best scalloped.....	50
Mrs. A. W. Phelps.....	442 W. 6th Ave., Columbus, O.	Best honiton lace.....	1 00
Mrs. F. W. Jennings.....	61 W. 11th Ave., Columbus, O.	2d best honiton lace.....	50
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.	Best initial.....	1 00
Mrs. Guy Titworth.....	312 Broadway, Sedalia, Mo.	2d best initial.....	50
Mrs. M. W. Jennings.....	4232 Delaney St., Cincinnati, O.	Best monogram.....	1 00
Mrs. E. Buck.....	219 Arlington Ave., Lockland, Ohio	2d best monogram.....	50
Mrs. Sarah Richey.....	1495 E. Main St., Columbus, O.	Best tatting.....	1 00
Mrs. W. H. Covault.....	Mechanicsburg, O.	2d best tatting.....	50
Mrs. F. W. Jennings.....	61 W. 11th Ave., Columbus, O.	Best embroidered conventional bags.....	1 00
Mrs. Emma A. Gerhart.....	117 E. Crawford St., Van Wert, Ohio	Best embroidered flower design.....	1 00
Mrs. Guy Titworth.....	312 Broadway, Sedalia, Mo.	2d best embroidered flower design.....	50
Mrs. B. P. Sampson.....	1103 Pennsylvania Ave., Columbus, O.	Best crocheted border.....	1 00
Mrs. Z. S. Herrington.....	Coshocton, O.	2d best crocheted border.....	50

BAGS—HAND-MADE.

Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.	Best Macreme bag.....	\$2 00
Miss Bertha Krause.....	78 S. 3d St., Columbus, O.	2d best Macreme bag.....	1 00
Miss Ettie Johnson.....	N. Barrow St., Eaton, O.	Best tatting and coronation cord combined.....	2 00
Mrs. Sarah E. Richey.....	1495 E. Main St., Columbus, O.	2d best tatting and coronation cord combined.....	1 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., Columbus, Ohio	Best linen embroidered.....	2 00
Mrs. L. A. Waggaman.....	217 W. Superior St., Kokomo, Ind.	2d best linen embroidered.....	1 00
Mrs. L. J. Housel.....	1305 Forsythe Ave., Columbus, Ohio	Best silk embroidered.....	2 00
Mrs. J. S. McKelvy.....	552 Franklin Ave., Columbus, Ohio	2d best silk embroidered.....	1 00
Grace Matson.....	Ashtabula, O.	Best party bag.....	2 00
Mrs. F. W. Kibbe.....	1403 Huron St., Toledo, O.	2d best party bag.....	1 00
Mrs. W. E. Wilder.....	771 N. High St., Columbus, O.	Best beaded bag.....	2 00
Mrs. Wm. R. Foster.....	647 Oakwood Ave., Columbus, Ohio	2d best beaded bag.....	1 00
Mrs. L. J. Housel.....	1305 Forsythe Ave., Columbus, Ohio	Best opera bag.....	2 00
Mrs. E. W. Judd.....	Mt. Vernon, O.	2d best opera bag.....	1 00
Mrs. Geo. Sands.....	217 Superior St., Kokomo, Ind.	Best shopping bag.....	2 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.	2d best shopping bag.....	1 00
Mrs. W. H. Covault.....	Mechanicsburg, O.	Best fancy work bag.....	2 00
Mrs. L. J. Housel.....	1305 Forsythe Ave., Columbus, Ohio	2d best fancy work bag.....	1 00
Mrs. Golda Sorman.....	217 Superior St., Kokomo, Ind.	Best darning bag.....	2 00
Amelia D. Covault.....	Mechanicsburg, O.	2d best darning bag.....	1 00
Fannie Fearn.....	Groveport, O.	Best laundry bag.....	2 00
Mrs. Geo. Sands.....	217 W. Superior St., Kokomo, Ind.	2d best laundry bag.....	1 00

WOMAN'S WORK—Continued.

DECORATIVE ART WORK—AMATEUR.

JUDGE, MRS. SOPHIE JOSEPH.

Premiums offered \$21 00
 Premiums paid 20 00
 Entries 75

Name.	Postoffice.	Awards.	Amount.
Mrs. Ed. Greiner.....	73 E. Williams St., Delaware, O	Best picture frame	\$1 00
Mrs. W. L. Holton.....	611 N. Wittenberg Ave., Springfield, O	2d best picture frame.....	50
Mrs. Grace Bigelow.....	Plain City, O	Best handkerchief case or box.....	1 00
Miss Bertha Krause.....	78 S. 3d St., Columbus, O	2d best handkerchief case or box.....	50
Mrs. W. L. Holton.....	611 N. Wittenberg Ave., Springfield, O	Best glove case or box.....	1 00
Carrie F. Mosteller.....	120 Elmwood Ave., Newark, O	2d best glove case or box.....	50
Miss Adeline Phelps.....	442 W. 6th Ave., Columbus, O	Best jewel case or chest.....	1 00
Mrs. Chas. N. Hunter.....	Springfield, O, R. 5	2d best jewel case or chest.....	50
Mrs. L. A. Waggaman.....	217 Superior St., Kokomo, Ind.	Best book cover.....	1 00
Grace B. Matson.....	Ashtabula, O	2d best book cover.....	50
Mrs. W. L. Holton.....	611 Wittenberg Ave., Springfield, O	Best book rack.....	1 00
Miss Winifred Holton.....	611 Wittenberg Ave., Springfield, O	Best magazine cover.....	1 00
Mrs. L. J. Housel.....	1305 Forsythe Ave., Columbus, Ohio	2d best magazine cover.....	50
Carrie F. Mosteller.....	120 Elmwood Ave., Newark, O	Best photograph case.....	1 00
Miss Rachael M. Smith.....	Trinway, O, R. 1	2d best photograph case.....	50
Marian M. Bright.....	74 N. Garfield Ave., Columbus, Ohio	Best desk set.....	1 00
Mrs. W. L. Holton.....	611 Wittenberg Ave., Springfield, O	2d best desk set.....	50
Mrs. H. R. Gentsch.....	1225 Farwell Ave., Chicago, Ill.	Best opera bag.....	1 00
Miss Mabel Hain.....	1749 N. 4th St., Columbus, O	Best shopping bag.....	1 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O	2d best shopping bag.....	50
Mrs. L. J. Pulliam.....	1020 S. 7th St., Springfield, Ill	Best stencil on fabric.....	1 00
Mrs. G. E. Brittian.....	900 Manhattan Ave., Dayton, Ohio	2d best stencil on fabric.....	50
Mrs. Geo. Sands.....	217 W. Superior St., Kokomo, Ind.	Best stencil on wood.....	1 00
Grace B. Matson.....	Ashtabula, O	2d best stencil on wood.....	50
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O	Best tapestry painting.....	1 00
Miss Rachel M. Smith.....	Trinway, O, R. 1	2d best tapestry painting.....	50

CHINA PAINTING—AMATEUR.

JUDGE, AUGUSTA P. LATHAM.

Premiums offered \$106 00
 Premiums paid 104 00
 Entries 64

Name.	Postoffice.	Awards.	Amount.
Mrs. C. M. Rambo.....	53 S. 4th St., Zanesville, O	Best six large plates.....	\$4 00
Miss Mary Goddard.....	78 E. Capital St., Columbus, O	2d best six large plates.....	2 00
Miss Mary Goddard.....	78 E. Capital St., Columbus, O	Best teapot, sugar and cream.....	4 00
Mrs. G. E. Brittian.....	900 Manhattan Ave., Dayton, Ohio	2d best teapot, sugar and cream.....	2 00
Mrs. G. E. Brittian.....	900 Manhattan Ave., Dayton, Ohio	Best chop tray.....	4 00
Ruth Corbin.....	425 W. 2d Ave., Columbus, O	2d best chop tray.....	2 00
Mrs. C. M. Rambo.....	53 S. 4th St., Zanesville, O	Best cake plate.....	4 00
Louise Zunkeller.....	322 S. 4th St., Dayton, Ky	2d best cake plate.....	2 00
Mrs. C. M. Rambo.....	53 S. 4th St., Zanesville, O	Best tankard.....	4 00
Louise Zunkeller.....	322 S. 4th St., Dayton, Ky	2d best tankard.....	2 00
Louise Zunkeller.....	322 S. 4th St., Dayton, Ky	Best plaque.....	4 00
Miss Geneva Cramer.....	315 Parkwood Ave., Columbus, O	2d best plaque.....	2 00
Miss Mary Goddard.....	78 E. Capital St., Columbus, O	Best vase.....	4 00
Miss Geneva Cramer.....	315 Parkwood Ave., Columbus, O	2d best vase.....	2 00

CONVENTIONAL.

WOMAN'S WORK—Continued.

Name.	Postoffice.	Awards.	Amount.
CHINA PAINTING—AMATEUR—CONVENTIONAL—Concluded.			
Miss Hulda Scott.....	845 S. Main St., Kenton, O.....	Best salad dish.....	\$4 00
Mrs. C. E. Reiser.....	87 12th Ave., Columbus, O.....	2d best salad dish.....	2 00
Mrs. C. M. Rambo.....	53 S. 4th St., Zanesville, O.....	Best bonbon dish.....	4 00
Miss Mary Goddard.....	78 E. Capital St., Columbus, O.....	2d best bonbon dish.....	2 00
Mrs. C. M. Rambo.....	53 S. 4th St., Zanesville, O.....	Best nut bowl.....	4 00
Miss Mary Goddard.....	78 E. Capital St., Columbus, O.....	2d best nut bowl.....	2 00
Miss Hulda Scott.....	845 S. Main St., Kenton, O.....	Best pair candlesticks.....	4 00
Mrs. C. M. Rambo.....	53 S. 4th St., Zanesville, O.....	Best display—5 pieces.....	25 00
Louise Zumkeller.....	322 S. 4th St., Dayton, Ky.....	2d best display—5 pieces.....	15 00

CHINA PAINTING—AMATEUR.

JUDGE, AUGUSTA P. LATHAM.

Premiums offered.....	\$128 00
Premiums paid.....	128 00
Entries.....	89

Name.	Postoffice.	Awards.	Amount.
NATURALISTIC.			
Mrs. L. R. Young.....	848 S. Main St., Kenton, O.....	Best chocolate set.....	\$4 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	2d best chocolate set.....	2 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	Best six large plates.....	4 00
Hazel Crane.....	641 Dennison Ave., Columbus, Ohio.....	2d best six large plates.....	2 00
Mrs. L. R. Young.....	828 S. Main St., Kenton, O.....	Best six small plates.....	4 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	2d best six small plates.....	2 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	Best six cups and saucers.....	4 00
Hazel Crane.....	641 Dennison Ave., Columbus, Ohio.....	2d best six cups and saucers.....	2 00
Mrs. L. R. Young.....	848 S. Main St., Kenton, O.....	Best teapot, sugar and cream.....	4 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	2d best teapot, sugar and cream.....	2 00
Mrs. L. R. Young.....	848 S. Main St., Kenton, O.....	Best chop tray.....	4 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	2d best chop tray.....	2 00
Cornelia I. Howard.....	374 Abbott Ave., Columbus, O.....	Best cake plate.....	4 00
Hazel Peters.....	Columbus, O.....	2d best cake plate.....	2 00
Miss Mary Goddard.....	78 E. Capital St., Columbus, O.....	Best salad dish.....	4 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	2d best salad dish.....	2 00
Mrs. L. R. Young.....	848 S. Main St., Kenton, O.....	Best pitcher.....	4 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	2d best pitcher.....	2 00
Mrs. C. M. Rambo.....	53 S. 4th St., Zanesville, O.....	Best tankard or claret pitcher and mug.....	4 00
Louise Zumkeller.....	322 3d Ave., Dayton, Ky.....	2d best tankard or claret pitcher and mug.....	2 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	Best punch bowl.....	4 00
Mrs. C. E. Reiss.....	87 12th Ave., Columbus, O.....	2d best punch bowl.....	2 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	Best tray.....	4 00
Mrs. L. R. Young.....	828 S. Main St., Kenton, O.....	2d best tray.....	2 00
Hazel Peters.....	Columbus, O.....	Best plaque.....	4 00
Mrs. G. E. Brittan.....	900 Manhattan Ave., Dayton, O.....	2d best plaque.....	2 00
Miss Mary Goddard.....	78 E. Capital St., Columbus, O.....	Best vase.....	4 00
Grace E. Young.....	850 Oak St., Columbus, O.....	2d best vase.....	2 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	Best jardiniere.....	4 00
Miss Geneva Cramer.....	315 Parkwood Ave., Columbus, O.....	2d best jardiniere.....	2 00
Hazel Peters.....	Columbus, O.....	Best fern dish.....	4 00
Cornelia I. Howard.....	374 Abbott Ave., Columbus, O.....	2d best fern dish.....	2 00
Miss Mary Goddard.....	78 E. Capital St., Columbus, O.....	Best display, 5 pieces.....	20 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	2d best display, 5 pieces.....	10 00

AWARDS.

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WOMAN'S WORK—Continued.
CHINA PAINTING—AMATEUR.

JUDGE, AUGUSTA P. LATHAM.

Premiums offered..... \$84 00
Premiums paid..... 76 00
Entries..... 32

FIGURE WORK.

Name.	Postoffice.	Awards.	Amount.
Mrs. G. E. Brittian.....	900 Manhattan Ave., Day- ton, O.....	Best portrait.....	\$4 00
Miss L. P. Warman.....	2727 Harris Ave., Norwood, O.....	2d best portrait.....	2 00
Amelia E. Ludwig.....	423 S. Champion Ave., Colum- bus, O.....	Best miniature.....	4 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	2d best miniature.....	2 00
Amelia E. Ludwig.....	423 S. Champion Ave., Co- lumbus, O.....	Best plaque.....	4 00
Mrs. G. E. Brittian.....	900 Manhattan Ave., Day- ton, O.....	2d best plaque.....	2 00
Amelia E. Ludwig.....	423 S. Champion Ave., Colum- bus, O.....	Best panel.....	4 00
Mrs. E. J. Lilly.....	Circleville, O.....	2d best panel.....	2 00
Mrs. G. E. Brittian.....	900 Manhattan Ave., Day- ton, O.....	Best vase.....	4 00
Mrs. G. E. Brittian.....	900 Manhattan Ave., Day- ton, O.....	2d best vase.....	2 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	Best stein.....	4 00
Mrs. Louis Coburn.....	213 W. Center St., Marion, O.....	2d best stein.....	2 00
Amelia E. Ludwig.....	423 S. Champion Ave., Co- lumbus, O.....	Best tankard.....	4 00
Mrs. E. J. Lilly.....	Circleville, O.....	Best bonbon dish.....	4 00
Amelia E. Ludwig.....	423 S. Champion Ave., Co- lumbus, O.....	2d best bonbon dish.....	2 00
Mrs. E. J. Lilly.....	Circleville, O.....	Best belt buckle.....	4 00
Amelia E. Ludwig.....	423 S. Champion Ave., Co- lumbus, O.....	2d best belt buckle.....	2 00
Mrs. E. J. Lilly.....	Circleville, O.....	Best display—5 pieces.....	20 00
Mrs. E. J. Lilly.....	Circleville, O.....	2d best display—5 pieces.....	10 00

CHINA PAINTING—PROFESSIONAL.

JUDGE, AUGUSTA P. LATHAM.

Premiums offered..... \$124 00
Premiums paid..... 118 00
Entries..... 145

Name.	Postoffice.	Awards.	Amount.
Mrs. Frances S. Peck.....	1369 Forsythe Ave., Colum- bus, O.....	Best punch bowl.....	\$4 00
Mrs. Wm. Welch.....	2339 Broadway, Indianapolis, Ind.....	2d best punch bowl.....	2 00
Meta Earnest.....	1059 E. Long St., Columbus, O.....	Best lemonade pitcher.....	4 00
Hannah C. Emminger.....	880 E. Broad St., Colum- bus, O.....	2d best lemonade pitcher.....	2 00
Mrs. Frances S. Peck.....	1369 Forsythe Ave., Colum- bus, O.....	Best plaque.....	4 00
Hannah C. Emminger.....	880 E. Broad St., Colum- bus, O.....	2d best plaque.....	2 00
Mrs. Frances S. Peck.....	1369 Forsythe Ave., Colum- bus, O.....	Best chop tray.....	4 00
Meta Earnest.....	1059 E. Long St., Colum- bus, O.....	2d best chop tray.....	2 00
Mary W. Russell.....	441 E. Grand Ave., Spring- field, O.....	Best nut bowl.....	4 00
Mrs. Della Parter.....	769 Neil Ave., Columbus, O.....	2d best nut bowl.....	2 00
Mrs. F. C. McGaughy.....	658 W. Main St., Galion, O.....	Best marmalade jar.....	4 00
Mrs. Belle Shook.....	710 S. Main St., Kenton, O.....	2d best marmalade jar.....	2 00

CONVENTIONAL.

WOMAN'S WORK—Continued.

Name.	Postoffice.	Awards.	Amount.
CHINA PAINTING—PROFESSIONAL—CONVENTIONAL—Concluded.			
Mrs. John F. Kreis.....	Marion, O.....	Best tankard or claret pitcher and mug.....	\$4 00
Mary A. Russell.....	441 E. Grand Ave., Spring- field, O.....	2d best tankard or claret pitcher and mug ..	2 00
Mrs. Frances S. Peck.....	1369 Forsythe Ave., Colum- bus, O.....	Best vase.....	4 00
Mrs. H. L. Cowser.....	383 12th Ave., Columbus, O.....	2d best vase.....	2 00
Mrs. John F. Kreis.....	Marion, O.....	Best six cups and saucers.....	4 00
Mrs. Frances S. Peck.....	1369 Forsythe Ave., Colum- bus, O.....	2d best six cups and saucers.....	2 00
Mrs. Frances S. Peck.....	1369 Forsythe Ave., Colum- bus, O.....	Best 6 large plates.....	4 00
Mrs. Belle Shook.....	710 E. Main St., Columbus, O.....	2d best 6 large plates.....	2 00
Mrs. Frances S. Peck.....	1369 Forsythe Ave., Colum- bus, O.....	Best six small plates.....	4 00
Meta Earnest.....	1059 E. Long St., Columbus, O.....	2d best six small plates.....	2 00
Mrs. Frances S. Peck.....	1369 Forsythe Ave., Colum- bus, O.....	Best specimen of enamel.....	4 00
Meta Earnest.....	1059 Long St., Columbus, O.....	2d best specimen of enamel.....	2 00
Mary W. Russell.....	441 E. Grand Ave., Colum- bus, O.....	Best specimen of pastework.....	4 00
Hannah C. Emminger.....	880 E. Broad St., Columbus, O.....	2d best specimen of pastework.....	2 00
Mrs. Frances S. Peck.....	1369 Forsythe Ave., Colum- bus, O.....	Best display 6 pieces.....	25 00
Mary W. Russell.....	441 E. Grand Ave., Spring- field, O.....	2d best display 6 pieces.....	15 00

CHINA PAINTING—PROFESSIONAL.

JUDGE, AUGUSTA P. LATHAM.

Premiums offered.....	\$114 00
Premiums paid.....	114 00
Entries.....	136

Name.	Postoffice.	Awards.	Amount.
NATURALISTIC.			
Meta Earnest.....	1059 E. Long St., Columbus, O.....	Best punch bowl.....	\$4 00
Mrs. F. C. McGaughy.....	658 W. Main St., Galion, O.....	2d best punch bowl.....	2 00
Hannah C. Emminger.....	880 E. Broad St., Columbus, O.....	Best lemonade pitcher.....	4 00
Mrs. John F. Kreis.....	Marion, O.....	2d best lemonade pitcher.....	2 00
Mrs. F. C. McGaughy.....	658 W. Main St., Galion, O.....	Best panel.....	4 00
Mrs. Frances S. Peck.....	1369 Forsythe Ave., Colum- bus, O.....	2d best panel.....	2 00
Mrs. Belle Shook.....	710 S. Main St., Kenton, O.....	Best plaque.....	4 00
Mrs. H. L. Cowser.....	383 12th Ave., Columbus, O.....	2d best plaque.....	2 00
Mrs. F. C. McGaughy.....	658 W. Frambes Ave., Colum- bus, O.....	Best chop tray.....	4 00
Mrs. Dove Ebright.....	40 W. Frambes Ave., Colum- bus, O.....	2d best chop tray.....	2 00
Mrs. Frances S. Peck.....	1369 Forsythe Ave., Colum- bus, O.....	Best nut bowl.....	4 00
Mrs. John F. Kreis.....	Marion, O.....	2d best nut bowl.....	2 00
Mrs. Frances S. Peck.....	1369 Forsythe Ave., Colum- bus, O.....	Best marmalade jar.....	4 00
Mrs. F. C. McGaughy.....	658 W. Main St., Galion, O.....	2d best marmalade jar.....	2 00
Meta Earnest.....	1059 Long St., Columbus, O.....	Best tankard or claret pitcher and mug.....	4 00
Mrs. John F. Kreis.....	Marion, O.....	2d best tankard or claret pitcher and mug.....	2 00
Mrs. H. L. Cowser.....	338 12th Ave., Columbus, O.....	Best vase.....	4 00
Mary W. Russell.....	441 E. Grand Ave., Spring- field, O.....	2d best vase.....	2 00
Mrs. Della Parter.....	769 Neil Ave., Columbus, O.....	Best 6 cups and saucers.....	4 00
Mrs. F. C. McGaughy.....	658 W. Main St., Galion, O.....	2d best 6 cups and saucers.....	2 00
Frances S. Peck.....	1369 Forsythe Ave., Colum- bus, O.....	Best 6 large plates.....	4 00
Mrs. John F. Kreis.....	Marion, O.....	2d best 6 large plates.....	2 00
Mrs. John F. Kreis.....	Marion, O.....	Best 6 small plates.....	4 00
Mrs. F. C. McGaughy.....	658 W. Main St., Galion, O.....	2d best 6 small plates.....	2 00
Meta Earnest.....	1059 E. Long St., Columbus, O.....	Best specimen of enamel.....	4 00
Hannah C. Emminger.....	880 E. Broad St., Columbus, O.....	2d best specimen of enamel.....	2 00
Mrs. F. C. McGaughy.....	658 W. Main St., Galion, O.....	Best specimen of paste work.....	4 00

WOMAN'S WORK—Continued.

Name.	Postoffice.	Awards.	Amount.
CHINA PAINTING—PROFESSIONAL—NATURALISTIC—Concluded.			
Mrs. Wm. Welch.....	2339 Broadway, Indianapolis, Ind.	2d best specimen of paste work.....	\$2 00
Mrs. Frances S. Peck.....	1369 Forsythe Ave., Columbus, O.	Best display—6 pieces.....	20 00
Mrs. Della Parter.....	769 Neil Ave., Columbus, O.	2d best display—6 pieces.....	10 00

CHINA PAINTING—PROFESSIONAL.

JUDGE, AUGUSTA P. LATHAM.

Premiums offered.....	\$84 00
Premiums paid.....	84 00
Entries.....	59

Name.	Postoffice.	Awards.	Amount.
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FIGURE WORK.

Mrs. Wm. Welch.....	2339 Broadway, Indianapolis, Ind.	Best portrait.....	\$4 00
Mrs. H. L. Cowser.....	383 12th Ave., Columbus, O.	2d best portrait.....	2 00
Grace Byerley.....	Chillicothe, O.	Best miniature.....	4 00
Miss Elizabeth Leigh.....	Groveport, O.	2d best miniature.....	2 00
Grace Byerley.....	Chillicothe, O.	Best plaque.....	4 00
Mrs. Wm. Welch.....	2339 Broadway, Indianapolis, Ind.	2d best plaque.....	2 00
Grace Byerley.....	Chillicothe, O.	Best panel.....	4 00
Mrs. Wm. Welch.....	2339 Broadway, Indianapolis, Ind.	2d best panel.....	2 00
Grace Byerley.....	Chillicothe, O.	Best vase.....	4 00
Mary W. Russell.....	441 E. Grand Ave., Springfield, O.	2d best vase.....	2 00
Mrs. F. C. McGaughy.....	658 W. Main St., Galion, O.	Best stein.....	4 00
Hannah C. Emminger.....	880 E. Broad St., Columbus, O.	2d best stein.....	2 00
Mrs. John F. Kreis.....	Marion, O.	Best tankard.....	4 00
Mrs. Wm. Welch.....	2339 Broadway, Indianapolis, Ind.	2d best tankard.....	2 00
Grace Byerley.....	Chillicothe, O.	Best bonbon dish.....	4 00
Mrs. Wm. Welch.....	2339 Broadway, Indianapolis, Ind.	2d best bonbon dish.....	2 00
Grace Byerley.....	Chillicothe, O.	Best belt buckle.....	4 00
Mrs. Wm. Welch.....	2339 Broadway, Indianapolis, Ind.	2d best belt buckle.....	2 00
Grace Byerley.....	Chillicothe, O.	Best display, 5 pieces.....	20 00
Mrs. Wm. Welch.....	2339 Broadway, Indianapolis, Ind.	2d best display, 5 pieces.....	10 00

ART NEEDLE WORK FOR PROFESSIONALS.

JUDGE, MRS. SOPHIE JOSEPH.

Premiums offered.....	\$65 00
Premiums paid.....	65 00
Entries.....	44

Name.	Postoffice.	Awards.	Amount.
Mrs. W. A. Forbes.....	246 Marshall Ave., Columbus, O.	Best table set, etc.	\$7 00
Mrs. Chas. Coleman.....	679 John St., Coshocton, O.	2d best table set, etc.	5 00
Mrs. M. A. Parker.....	19 N. Liberty St., Delaware, O.	Best lunch set (36 inches).....	5 00
Mrs. W. A. Forbes.....	246 Marshall Ave., Columbus, Ohio.	2d best lunch set (36 inches).....	3 00
Mrs. R. W. Priest.....	365 W. 4th Ave., Columbus, O.	Best center piece (24 inches).....	3 00
Mrs. M. A. Parker.....	19 N. Liberty St., Delaware, O.	2d best center piece (24 inches).....	2 00

WOMAN'S WORK—Continued.

Name.	Postoffice.	Awards.	Amount.
ART NEEDLE WORK—PROFESSIONALS—Concluded.			
Mrs. W. A. Forbes.....	246 N. Marshall Ave., Colum-	Best party bag.....	\$3 00
	bus, O.	2d best party bag.....	2 00
Mrs. J. C. DeVore.....	80 E. 11th Ave., Columbus, O.		
Mrs. W. B. Wolf.....	22 Augustine Ave., Mansfield,	Best towel.....	3 00
	Ohio.	2d best towel.....	2 00
Miss Alice Dixon.....	Croton, O.	Best sheet.....	3 00
Mrs. R. W. Priest.....	365 W. 4th Ave., Columbus, O.	2d best sheet.....	2 00
Mrs. E. E. Weaver.....	835 Atcheson St., Columbus, O.	Best pair pillow cases.....	3 00
Mrs. J. C. DeVore.....	80 E. 11th Ave., Columbus, O.	2d best pair pillow cases.....	2 00
Mrs. R. W. Priest.....	365 W. 4th Ave., Columbus, O.	Best single specimen.....	3 00
Mrs. M. A. Parker.....	19 N. Liberty St., Delaware, O.	2d best single specimen.....	2 00
Mrs. Chas. Coleman.....	679 John St., Coshocton, O.	Best display not less than 8 pieces.....	10 00
Mrs. M. A. Parker.....	19 N. Liberty St., Delaware, O.	2d best display not less than 8 pieces.....	5 00
Miss Alice Dixon.....	Croton, O.		

PRESERVES, PICKLES, ETC.

JUDGE, MRS. F. J. PETERS.

Premiums offered.....	\$240 00
Premiums paid.....	220 00
Entries.....	347

Name.	Postoffice.	Awards.	Amount.
Mrs. Geo. Lee.....	Canal Winchester, O.	Best canned tomatoes.....	\$1 00
Mrs. F. W. Jennings.....	61 W. 11th Ave., Columbus, O.	2d best canned tomatoes.....	50
Mary Stewart.....	Jacksontown, O.	Best canned blackberries.....	1 00
Mrs. Geo. Lee.....	Canal Winchester, O.	2d best canned blackberries.....	50
Mrs. Geo. Lee.....	Canal Winchester, O.	Best canned raspberries.....	1 00
H. E. Stewart.....	Thornville, O., R. 5.....	2d best canned raspberries.....	50
Mrs. Geo. Lee.....	Canal Winchester, O.	Best canned peaches.....	1 00
Mary Stewart.....	Jacksontown, O.	2d best canned peaches.....	50
Mrs. Geo. Lee.....	Canal Winchester, O.	Best canned pears.....	1 00
H. E. Stewart.....	Thornville, O., R. 5.....	2d best canned pears.....	50
Mrs. Geo. Lee.....	Canal Winchester, O.	Best canned pineapples.....	1 00
Mary Stewart.....	Jacksontown, O.	2d best canned pineapples.....	50
Mrs. Wm. R. Foster.....	647 Oakwood Ave., Columbus,		
	Ohio.	Best canned apples.....	1 00
Mrs. Geo. Lee.....	Canal Winchester, O.	2d best canned apples.....	50
Mrs. Geo. Lee.....	Canal Winchester, O.	Best canned quinces.....	1 00
Mary Stewart.....	Jacksontown, O.	2d best canned quinces.....	50
Mrs. Geo. Lee.....	Canal Winchester, O.	Best canned strawberries.....	1 00
H. E. Stewart.....	Thornville, O., R. 5.....	2d best canned strawberries.....	50
Mrs. Geo. Lee.....	Canal Winchester, O.	Best canned cherries.....	1 00
Mary Stewart.....	Jacksontown, O.	2d best canned cherries.....	50
H. E. Stewart.....	Thornville, O., R. 5.....	Best canned gooseberries.....	1 00
Mary Stewart.....	Jacksontown, O.	Best canned huckleberries.....	1 00
H. E. Stewart.....	Thornville, O., R. 5.....	Best canned elderberries.....	1 00
Mrs. Geo. Lee.....	Canal Winchester, O.	2d best canned elderberries.....	50
Mary Stewart.....	Jacksontown, O.	Best canned currants.....	1 00
Mrs. Geo. Lee.....	Canal Winchester, O.	2d best canned currants.....	50
Mrs. Geo. Lee.....	Canal Winchester, O.	Best canned grapes.....	1 00
Mrs. Geo. Lee.....	Canal Winchester, O.	Best canned plums.....	1 00
Mary Stewart.....	Jacksontown, O.	2d best canned plums.....	50
Mary Stewart.....	Jacksontown, O.	Best canned beans.....	1 00
Mrs. F. W. Jennings.....	61 W. 11th Ave., Columbus, O.	2d best canned beans.....	50
Mrs. Geo. Lee.....	Canal Winchester, O.	Best canned rhubarb.....	1 00
Mary Stewart.....	Jacksontown, O.	Best canned corn on ear or otherwise.....	1 00
Mrs. F. W. Jennings.....	61 W. 11th Ave., Columbus, O.	2d best canned corn on ear or otherwise.....	50
Mrs. Alex. Henry.....	14 Sells Court, Columbus, O.	Best blackberry jelly.....	1 00
Grace B. Matson.....	Ashtabula, O.	2d best blackberry jelly.....	50
Grace B. Matson.....	Ashtabula, O.	2d best cranberry jelly.....	50
Mrs. F. W. Jennings.....	61 W. 11th Ave., Columbus, O.	Best grape jelly.....	1 00
Mrs. Dan E. Richards.....	1372 Eastwood Ave., Colum-		
	bus, O.	2d best grape jelly.....	50
Mrs. W. A. Forbes.....	246 Marshall Ave., Columbus,		
	Ohio.	Best raspberry jelly.....	1 00
H. E. Stewart.....	Thornville, O., R. 5.....	2d best raspberry jelly.....	50
Mrs. L. J. Housel.....	1305 Forsythe Ave., Columbus,		
	Ohio.	Best strawberry jelly.....	1 00
Mrs. D. M. Young.....	805 Oak St., Columbus, O.	2d best strawberry jelly.....	50

WOMAN'S WORK—Continued.

Name.	Postoffice.	Awards.	Amount.
PRESERVES, PICKLES, ETC.—Continued.			
Mrs. F. W. Jennings	61 W. 11th Ave., Columbus, O.	Best apple jelly.....	\$1 00
Mrs. Dan E. Richards	1372 Eastwood Ave., Columbus, O.	2d best apple jelly.....	50
Grace B. Matson	Ashtabula, O.	2d best pear jelly.....	50
Grace B. Matson	Ashtabula, O.	Best crabapple jelly.....	1 00
Mrs. Alex. Henry	14 Sells Court, Columbus, O.	2d best crabapple jelly.....	50
Mary Stewart	Jacksontown, O.	Best currant jelly.....	1 00
Fannie Fearn	Groveport, O.	2d best currant jelly.....	50
Arnie Scott	1274 Summit St., Columbus, O.	Best peach jelly.....	1 00
Mrs. D. M. Young	850 Oak St., Columbus, O.	2d best peach jelly.....	50
Mrs. L. J. Housel	1305 Forsythe Ave., Columbus, Ohio	Best quince jelly.....	1 00
Mrs. Geo. Lee	Canal Winchester, O.	2d best quince jelly.....	50
Mrs. A. C. Eggert	1305 Forsythe Ave., Columbus, Ohio	Best plum jelly.....	1 00
Mrs. Alex. Henry	14 Sells Court, Columbus, O.	2d best plum jelly.....	50
Mrs. Geo. Lee	Canal Winchester, O.	Best lemon jelly.....	1 00
Mrs. L. J. Housel	1305 Forsythe Ave., Columbus, Ohio	2d best lemon jelly.....	50
Mrs. Geo. Lee	Canal Winchester, O.	2d best pineapple.....	50
Mrs. Geo. Lee	Canal Winchester, O.	Best rhubarb jelly.....	1 00
Grace B. Matson	Ashtabula, O.	2d best rhubarb jelly.....	50
Fannie Fearn	Groveport, O.	Best gooseberry jelly.....	1 00
H. E. Stewart	Thornville, O., R. 5.	2d best gooseberry jelly.....	50
Mrs. Geo. Lee	Canal Winchester, O.	Best preserved quinces.....	2 00
Mrs. Geo. Lee	Canal Winchester, O.	Best preserved pears.....	2 00
H. E. Stewart	Thornville, O., R. 5.	2d best preserved pears.....	1 00
Mrs. Geo. Lee	Canal Winchester, O.	Best preserved apples.....	2 00
Mary Stewart	Jacksontown, O.	2d best preserved apples.....	1 00
Mrs. Geo. Lee	Canal Winchester, O.	Best preserved plums.....	2 00
Fannie Fearn	Groveport, O.	2d best preserved plums.....	1 00
Fannie Fearn	Groveport, O.	Best preserved cherries.....	2 00
Mrs. W. A. Himmeger	677 Park St., Marion, O.	2d best preserved cherries.....	1 00
H. E. Stewart	Thornville, O., R. 5.	Best preserved crabapples.....	2 00
Mary Stewart	Jacksontown, O.	Best preserved grapes.....	2 00
Mrs. Geo. Lee	Canal Winchester, O.	2d best preserved grapes.....	1 00
H. E. Stewart	Thornville, O., R. 5.	Best preserved strawberries.....	2 00
Mrs. Geo. Lee	Canal Winchester, O.	2d best preserved strawberries.....	1 00
Mrs. W. A. Himmeger	677 Park St., Marion, O.	Best preserved blackberries.....	2 00
Mary Stewart	Jacksontown, O.	2d best preserved blackberries.....	1 00
Mrs. Geo. Lee	Canal Winchester, O.	Best preserved peaches.....	2 00
Mrs. F. W. Jennings	61 W. 11th Ave., Columbus, O.	2d best preserved peaches.....	1 00
Mary Stewart	Jacksontown, O.	Best preserved currants.....	2 00
Fannie Fearn	Groveport, O.	2d best preserved currants.....	1 00
Mrs. Geo. Lee	Canal Winchester, O.	Best preserved gooseberries.....	2 00
Mrs. W. A. Forbes	246 Marshall Ave., Columbus, Ohio	Best preserved melons.....	2 00
Mrs. L. J. Housel	1305 Forsythe Ave., Columbus, Ohio	2d best preserved melons.....	1 00
H. E. Stewart	Thornville, O., R. 5.	Best preserved pineapple.....	2 00
Mrs. Geo. Lee	Canal Winchester, O.	2d best preserved pineapple.....	1 00
Mrs. Geo. Lee	Canal Winchester, O.	Best preserved cranberries.....	2 00
Mary Stewart	Jacksontown, O.	2d best preserved cranberries.....	1 00
Mrs. F. W. Jennings	61 W. 11th Ave., Columbus, O.	Best pickled cucumbers.....	2 00
Mrs. Florence Cameron	Westerville, O.	2d best pickled cucumbers.....	1 00
Mrs. Geo. Lee	Canal Winchester, O.	Best pickled cabbage.....	2 00
Mary Stewart	Jacksontown, O.	2d best pickled cabbage.....	1 00
Mrs. L. J. Housel	1305 Forsythe Ave., Columbus, Ohio	Best pickled beets.....	2 00
Mrs. F. W. Jennings	61 W. 11th Ave., Columbus, O.	2d best pickled beets.....	1 00
Mary Stewart	Jacksontown, O.	Best pickled peaches.....	2 00
Fannie Fearn	Groveport, O.	2d best pickled peaches.....	1 00
H. E. Stewart	Thornville, O., R. 5.	Best pickled pears.....	2 00
Mrs. W. A. Himmeger	677 Park St., Marion, O.	2d best pickled pears.....	1 00
Mary Stewart	Jacksontown, O.	Best pickled tomatoes.....	2 00
Mrs. Geo. Lee	Canal Winchester, O.	2d best pickled tomatoes.....	1 00
H. E. Stewart	Thornville, O., R. 5.	Best pickled melon mangoes.....	2 00
Mrs. Geo. Lee	Canal Winchester, O.	2d best pickled melon mangoes.....	1 00
Mrs. Geo. Lee	Canal Winchester, O.	Best pickled pepper mangoes.....	2 00
Mary Stewart	Jacksontown, O.	2d best pickled pepper mangoes.....	1 00
Mrs. F. W. Jennings	61 W. 11th Ave., Columbus, O.	Best pickled melons.....	2 00
Mrs. Alex. Henry	14 Sells Court, Columbus, O.	2d best pickled melons.....	1 00
Mrs. W. A. Himmeger	677 Park St., Marion, O.	Best pickled onions.....	2 00
Mary Stewart	Jacksontown, O.	2d best pickled onions.....	1 00
Mrs. Geo. Lee	Canal Winchester, O.	2d best pickled gherkins.....	1 00
Mary Stewart	Jacksontown, O.	Best pickled cauliflower.....	2 00
Mrs. Geo. Lee	Canal Winchester, O.	Best mixed pickles.....	2 00
H. E. Stewart	Thornville, O., R. 5.	2d best mixed pickles.....	1 00
Mrs. W. A. Forbes	246 Marshall Ave., Columbus, Ohio	Best tomato catsup.....	2 00

WOMAN'S WORK—Continued.

Name.	Postoffice.	Awards.	Amount.
PRESERVES, PICKLES, ETC.—Concluded.			
Mrs. W. A. Himmeger.....	677 Park St., Marion, O.....	2d best tomato catsup.....	\$1 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	Best cucumber catsup.....	2 00
H. E. Stewart.....	Thornville, O., R. 5.....	2d best cucumber catsup.....	1 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	Best cold tomato catsup.....	2 00
Mary E. Walters.....	Lancaster, O., R. 9.....	2d best cold tomato catsup.....	1 00
Mrs. A. C. Eggert.....	1305 Forsythe Ave., Columbus, Ohio.....	Best chili sauce.....	2 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	2d best chili sauce.....	1 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	Best chow chow.....	2 00
Mary Stewart.....	Jacksontown, O.....	2d best chow chow.....	1 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	Best cucumber relish.....	1 00
Mrs. W. A. Forbes.....	246 Marshall Ave., Columbus, Ohio.....	2d best cucumber relish.....	50
Mrs. Wm. R. Foster.....	647 Oakwood Ave., Columbus, Ohio.....	Best peach butter.....	2 00
Mrs. W. A. Himmeger.....	677 Park St., Marion, O.....	2d best peach butter.....	1 00
H. E. Stewart.....	Thornville, O., R. 5.....	Best apple butter.....	2 00
Fannie Fearn.....	Groveport, O.....	2d best apple butter.....	1 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	Best quince butter.....	2 00
Mary Stewart.....	Groveport, O.....	2d best quince butter.....	1 00
Mrs. L. J. House.....	1305 Forsythe Ave., Columbus, Ohio.....	Best tomato butter.....	2 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	2d best tomato butter.....	1 00
Fannie Fearn.....	Groveport, O.....	Best plum butter.....	2 00
Mrs. W. A. Himmeger.....	677 Park St., Marion, O.....	2d best plum butter.....	1 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	Best pear butter.....	2 00
Mrs. W. A. Forbes.....	246 Marshall Ave., Columbus, Ohio.....	2d best pear butter.....	1 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	Best grape butter.....	2 00
Fannie Fearn.....	Groveport, O.....	2d best grape butter.....	1 00
H. E. Stewart.....	Thornville, O., R. 5.....	Best peach marmalade.....	2 00
Mary Stewart.....	Jacksontown, O.....	Best quince marmalade.....	2 00
H. E. Stewart.....	Thornville, O.....	Best crabapple marmalade.....	2 00
Mrs. F. W. Jennings.....	61 W. 11th Ave., Columbus, O.....	Best orange marmalade.....	2 00
Mrs. W. A. Himmeger.....	677 Park St., Marion, O.....	2d best orange marmalade.....	1 00
H. E. Stewart.....	Thornville, O., R. 5.....	Best pear marmalade.....	2 00
Mrs. W. A. Himmeger.....	677 Park St., Marion, O.....	2d best pear marmalade.....	1 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	Largest and best variety canned fruit.....	5 00
Mary Stewart.....	Jacksontown, O.....	2d largest and best variety canned fruit.....	3 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	Largest and best variety pickles.....	5 00
H. E. Stewart.....	Thornville, O., R. 5.....	2d largest and best variety pickles.....	3 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	Largest and best variety jellies.....	5 00
Mary Stewart.....	Jacksontown, O.....	Largest and best variety preserves.....	5 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	2d largest and best variety preserves.....	3 00
Mrs. F. W. Jennings.....	61 W. 11th Ave., Columbus, O.....	Best display of butters, 5 varieties.....	5 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	2d best display of butters, 5 varieties.....	3 00
Mary Stewart.....	Jacksontown, O.....	Best display of marmalades, 5 varieties.....	5 00
Mrs. Geo. Lee.....	Canal Winchester, O.....	2d best display of marmalades, 5 varieties.....	3 00

CEREAL FOODS.

JUDGE, MRS. F. J. PETERS.

DOMESTIC BAKING.

Premiums offered.....		\$27 00
Premiums paid.....		24 00

Entries.....	45
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LOAF CAKES.

Premiums offered.....		\$34 00
Premiums paid.....		30 00

Entries.....	43
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LAYER CAKES.

Premiums offered.....		\$27 00
Premiums paid.....		23 00

Entries.....	48
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WOMAN'S WORK—Continued.

MISCELLANEOUS.

Premiums offered.....		\$10 50
Premiums paid.....		10 00
Entries.....	34	

PIES.

Premiums offered.....		\$12 00
Premiums paid.....		8 00
Entries.....	18	

CONFECTIONS—HOME MADE.

Premiums offered.....		\$18 00
Premiums paid.....		16 50
Entries.....	68	

Name.	Postoffice.	Awards.	Amount.
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DOMESTIC BAKING.

Mary Stewart.....	Jacksontown, O.....	Best yeast bread.....	\$5 00
Mary Seligue.....	Mt. Vernon, O., Box 213.....	2d best yeast bread.....	3 00
Laura A. Larkin.....	So. Charleston, O.....	3d best yeast bread.....	2 00
Laura A. Larkin.....	So. Charleston, O.....	Best salt rising bread.....	3 00
Miss Mina Tucker.....	Mt. Vernon, O.....	Best corn bread.....	2 00
Annie Scott.....	1274 Summit St., Columbus, O.....	2d best corn bread.....	1 00
H. E. Stewart.....	Thornville, O., R. 5.....	Best rye bread.....	2 00
Mary Stewart.....	Jacksontown, O.....	Best steamed brown bread.....	2 00
Mrs. F. W. Jennings.....	61 W. 11th Ave., Columbus, O.....	2d best steamed brown bread.....	1 00
Laura A. Larkin.....	So. Charleston, O.....	Best graham bread.....	2 00
H. E. Stewart.....	Thornville, O., R. 5.....	2d best graham bread.....	1 00

LOAF CAKES.

Mary Stewart.....	Jacksontown, O.....	Best black fruit.....	\$3 00
Laura A. Larkin.....	So. Charleston, O.....	2d best black fruit.....	2 00
H. E. Stewart.....	Thornville, O.....	Best white fruit.....	2 00
Annie Scott.....	1274 Summit St., Columbus, O.....	Best white.....	2 00
Mary Stewart.....	Jacksontown, O.....	2d best white.....	1 00
H. E. Stewart.....	Thornville, O., R. 5.....	Best marble.....	2 00
Mrs. Florence Cameron.....	Westerville, O.....	2d best marble.....	1 00
Mary Stewart.....	Jacksontown, O.....	2d best pound.....	1 00
H. E. Stewart.....	Thornville, O., R. 5.....	Best coffee.....	2 00
Mrs. Florence Cameron.....	Westerville, O., R. 5.....	2d best coffee.....	1 00
Mary Stewart.....	Jacksontown, O.....	Best nut.....	2 00
Mrs. W. A. Himmeger.....	677 Park St., Marion, O.....	2d best nut.....	1 00
Laura A. Larkin.....	So. Charleston, O.....	Best angel.....	3 00
Miss Otis Flook.....	174 W. Main St., Westerville, O.....	2d best angel.....	2 00
Mrs. C. S. Armstrong.....	37 W. 3d Ave., Columbus, O.....	Best sponge.....	2 00
Mrs. Alex. Henry.....	14 Sells Court, Columbus, O.....	Best sunshine.....	2 00
Mrs. C. S. Armstrong.....	37 W. 3d Ave., Columbus, O.....	2d best sunshine.....	1 00

LAYER CAKES.

Mary Stewart.....	Jacksontown, O.....	Best chocolate.....	\$2 00
H. E. Stewart.....	Thornville, O.....	2d best caramel.....	1 00
Mary Stewart.....	Jacksontown, O.....	Best cocoanut.....	2 00
Mrs. L. H. Cook.....	32 W. Main St., Westerville, O.....	2d best cocoanut.....	1 00
H. E. Stewart.....	Thornville, O.....	Best almond.....	2 00
Mrs. C. S. Armstrong.....	37 W. 3d Ave., Columbus, O.....	Best Devil.....	2 00
Mrs. Ethel M. Grossman.....	Grove City, O.....	2d best Devil.....	1 00
Mrs. C. S. Armstrong.....	37 W. 3d Ave., Columbus, O.....	Best fig.....	2 00
H. E. Stewart.....	Thornville, O.....	2d best fig.....	1 00
Mary Stewart.....	Jacksontown, O.....	Best ribbon.....	2 00
Mrs. L. H. Cook.....	32 W. Main St., Westerville, O.....	2d best ribbon.....	1 00
Ruth Bowman.....	46 W. 10th Ave., Columbus, O.....	Best plain white.....	2 00
H. E. Stewart.....	Thornville, O.....	2d best plain white.....	1 00
Mrs. F. W. Jennings.....	61 W. 11th Ave., Columbus, O.....	Best any other kind.....	2 00
Mrs. Ethel M. Grossman.....	Grove City, O.....	2d best any other kind.....	1 00

MISCELLANEOUS.

Mrs. D. M. Young.....	850 Oak St., Columbus, O.....	Best 1 doz. plain snaps.....	\$1 00
Annie Scott.....	1274 Summit St., Columbus, O.....	2d best 1 doz. plain snaps.....	50
Mrs. Fred M. Killets.....	2492 Findlay Ave., Columbus, Ohio.....	Best 1 doz. cookies.....	1 00

WOMAN'S WORK—Concluded.

Name.	Postoffice.	Awards.	Amount.
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MISCELLANEOUS—Concluded.

Mrs. Florence Cameron.....	Westerville, O.....	2d best 1 doz. cookies.....	\$0 50
Fannie E. Boyd.....	120 W. Lane Ave., Columbus, Ohio.....	Best 1 dozen doughnuts.....	1 00
Mary E. Walters.....	Lancaster, O., R. 9.....	2d best 1 doz. doughnuts.....	1 00
Mrs. F. W. Jennings.....	81 W. 11th Ave., Columbus, O.....	Best 1 doz. love pies.....	1 00
H. E. Stewart.....	Thornville, O., R. 5.....	Best 1 doz. ginger snaps.....	1 00
Annie Scott.....	1274 Summit St., Columbus, O.....	2d best 1 doz. ginger snaps.....	50
Mrs. D. M. Young.....	850 Oak St., Columbus, O.....	Best 1 doz. small cakes with nuts or fruit.....	1 00
Mary E. Walters.....	Lancaster, O., R. No. 9.....	2d best 1 doz. small cakes with nuts or fruit.....	50
Mrs. D. M. Young.....	850 Oak St., Columbus, O.....	Best 1 dozen small iced cakes.....	1 00
Mary E. Walters.....	Lancaster, O., R. 9.....	2d best 1 dozen small iced cakes.....	50

PIES.

Ruth Bowman.....	46 W. 10th Ave., Columbus, O.....	Best lemon.....	\$1 00
Mrs. F. W. Jennings.....	61 W. 11th Ave., Columbus, O.....	2d best lemon.....	50
Ruth Bowman.....	46 W. 10th Ave., Columbus, O.....	Best cocoanut cream.....	1 00
Mary E. Walters.....	Lancaster, O., R. 9.....	Best custard.....	1 00
Mrs. D. M. Young.....	850 Oak St., Columbus, O.....	Best peach.....	1 00
Annie Scott.....	1274 Summit St., Columbus, O.....	2d best peach.....	50
Mrs. Fred. M. Killets.....	2492 Findlay Ave., Colum- bus, O.....	Best cherry.....	1 00
Mary E. Walters.....	Lancaster, O., R. 9.....	2d best cherry.....	50
Mrs. Fred. M. Killets.....	2492 Findlay Ave., Colum- bus, O.....	Best blackberry.....	1 00
Mary E. Walters.....	Lancaster, O., R. 9.....	2d best blackberry.....	50

CONFECTIONS—HOME-MADE.

Helen Foster.....	647 Oakwood Ave., Colum- bus, O.....	Best 1 lb. French creams.....	\$1 00
Mrs. C. J. Rocky.....	27 E. Gambier St., Mt. Ver- non, O.....	2d best 1 lb. French creams.....	50
Mrs. C. J. Rocky.....	27 E. Gambier St., Mt. Ver- non, O.....	Best 1 lb. fudges.....	1 00
Mrs. Wm. R. Foster.....	647 Oakwood Ave., Colum- bus, O.....	2d best 1 lb. fudges.....	50
Mrs. C. J. Rocky.....	27 E. Gambier St., Mt. Ver- non, O.....	Best 1 lb. maple creams.....	1 00
Mrs. W. A. Himmeger.....	677 Park St., Marion, O.....	2d best 1 lb. maple creams.....	50
Mrs. Wm. R. Foster.....	647 Oakwood Ave., Colum- bus, O.....	Best 1 lb. chocolate creams.....	1 00
Mrs. S. C. Cook.....	Park and Short Sts., Marion, O.....	2d best 1 lb. chocolate creams.....	50
Mrs. C. J. Rocky.....	27 E. Gambier St., Mt. Ver- non, O.....	Best 1 pound nut candy.....	1 00
Mrs. W. A. Himmeger.....	647 Park St., Marion, O.....	2d best 1 pound nut candy.....	50
Mrs. D. M. Young.....	850 Oak St., Columbus, O.....	Best 1 pound taffy.....	1 00
Mary Stewart.....	Jacksontown, O.....	2d best 1 pound taffy.....	50
Ruth Bowman.....	46 W. 10th Ave., Columbus, Ohio.....	Best 1 pound divinity fudge or sea foam.....	1 00
Mrs. C. J. Rocky.....	27 E. Gambier St., Mt. Ver- non, O.....	2d best one pound divinity fudge or sea foam.....	50
Mrs. C. J. Rocky.....	27 E. Gambier St., Mt. Ver- non, O.....	Best 1 pound plain or nut caramels.....	1 00
Mrs. S. C. Cook.....	Park and Short Sts., Marion, O.....	2d best 1 pound plain or nut caramels.....	50
Mrs. F. W. Jennings.....	61 W. 11th Ave., Columbus, O.....	Best 1 pound candied lemon or orange peel.....	1 00
Mrs. W. A. Himmeger.....	677 Park St., Marion, O.....	2d best 1 pound candied lemon or orange peel.....	50
Mrs. S. C. Cook.....	Cor. Park and Short Sts., Marion, O.....	Best 1 pound almond macaroons.....	1 00
Annie Scott.....	1274 Summit St., Columbus, O.....	2d best 1 pound almond macaroons.....	50
Annie Scott.....	1274 Summit St., Columbus, O.....	Best hickory nut macaroons.....	1 00
Mrs. W. A. Himmeger.....	677 Park St., Marion, O.....	2d best hickory nut macaroons.....	50

WINNERS, BETTER BABIES' CONTEST.

DIVISION A.

- CLASS 1. 1st prize, Robert Williams, Marengo, O. R. 3.
\$10.00.....Score 96%.
2nd prize, Lloyd Roe Snider, New Lexington, R. 1.
\$5.00.....Score 94.5%.
3rd prize, Edward Henry Converse, Amlin, Ohio.
Silver spoon.....Score 90.5%
- CLASS 2. 1st prize, Victor Johnson, Wemlinger, O. R. F. D.
\$10.00.....Score 94.5%.
2nd prize, Paul George Schaible, Kirkersville, O.
\$5.00.....Score 93.4%.
3rd prize, Lawrence Fay Hardgrove, Linden Heights, O.
Silver spoon.....Score 93.1%
- CLASS 3. 1st prize, Ila Mildred Johnston, Westerville, O., R. F. D.
\$10.00.....Score 94.9%.
2nd prize, Margaret Athey, Grove City, O., R. 3.
\$5.00.....Score 92.5%.
3rd prize, Carrie Louise Hesse, Westerville, O., R. 3.
Silver spoon.....Score 91%.
- CLASS 4. 1st prize, Opal Eunice Roney, Linden Heights, O.
\$10.00.....Score 96.5%.
2nd prize, Mary Elizabeth Rannels, New Plymouth, O.
\$5.00.....Score 94%.
3rd prize, Audrey Hasson, Centerburg, O.
Silver spoon.....Score 93.9%.

DIVISION B.

- CLASS 1. 1st prize, Richard Lee Sheets, London, O.
\$10.00.....Score 90.5%.
- CLASS 2. 1st prize, Burdette Seusman, Tiptecanoe City, O.
\$10.00.....Score 95%.
2nd prize, Walter Kester Sheets, London Ohio.
\$5.00.....Score 93%.
- CLASS 3. 1st prize, Mary Terrell, Wilmington, O.
\$10.00.....Score 95%.
2nd prize, Madge Scoby, Plain City, O.
\$5.00.....Score 94%.
- CLASS 4. 1st prize, Rebecca Emily Gaskins, Sabina Ohio.
\$10.00.....Score 94%.
2nd prize, Helen Spielman, Logan, O.
\$5.00.....Score 93%.

DIVISION C.

- CLASS 1. 1st prize, Timothy Gilbert Armstrong 393 W. 9th Ave., Columbus, O. (Since moved to 52 Great Miami Blvd., Dayton, Ohio.)
\$10.00.....Score 97.5%.
2nd prize, Nelson LeRoy Leezer, 2555 Indianola Ave., Columbus, O.
\$5.00.....Score 96%.
3rd prize, John Nichols Rhoads, 35 W. Duncan St., Columbus, O.
Silver spoon.....Score 95.5%.

- CLASS 2. 1st prize, Harry H. Williams, 369 Innis Ave., Columbus, O.
\$10.00.....Score 92.8%.

- CLASS 3. 1st prize, Louise Sherman Culp, 998 Dennison Ave., Columbus, O.
\$10.00.....Score 98%.
2nd prize, Catherine Louise Neaser, 1343 Mt. Vernon Ave., Columbus, O.
\$5.00.....Score 93.8%.
3rd prize, Hazel Thatcher, 780 Columbus St., Columbus, O.
Silver spoon.....Score 92%.

- CLASS 4. 1st prize, Irma Menninger, 95 Islington St., Toledo, O.
\$10.00.....Score 94.5%.
2nd prize, Marion Virginia Mebs, 567 Gilbert St., Columbus, O.
\$5.00.....Score 94.5%.
3rd prize, Elizabeth Sarah Smith, 483 W. 2nd Ave., Columbus, O.
2nd prize, Dorothy Ruth Leezer, 2555 Indianola Ave., Columbus, O.
Laura Gayle Smith, 378 Jackson St., Columbus, O.
Silver spoons.....Score 94% (Tie).

SWEEPSTAKES.

- Highest scoring rural baby, Opal Eunice Roney, Linden Heights, O.
\$100.00, Woman's Home Companion,
Score.....96.5%.

- Highest scoring city baby, Louise Sherman Culp, 998 Dennison Ave., Columbus, O.
\$100.00, Woman's Home Companion,
Score.....98%.

CHAMPIONSHIPS.

- 1st Champion, Louise Sherman Culp, 998 Dennison Ave., Columbus, O.
Gold medal, Woman's Home Companion,
Score.....98%.
- 2nd Champion, Timothy Gilbert Armstrong, 393 W. 9th Ave., Columbus, O.
Silver medal, Woman's Home Companion
Score.....97.5%.
- 3rd Champion, Opal Eunice Roney, Linden Heights Ohio.
Bronze medal, Woman's Home Companion.....Score 96.5%.
- 4th Champion, Robert Carson Williams, Marengo, O. R. 3.
Bronze medal.....Score 96%.

SPECIAL PREMIUMS.

- Highest scoring boy in Franklin County, Timothy Gilbert Armstrong, 393 W. 9th Ave., Columbus, O.
Score.....97.5%.
\$25.00, Columbus Academy of Medicine.
- Highest scoring girl in Franklin County, Marion Virginia Mebs, 567 Gilbert St., Columbus, O.
Score.....94.5%.
\$25.00, Columbus Federation of Women's Clubs
- Hillikin prize Mary Haley, 813 Ebner St., Columbus, Ohio.

TWELFTH DEPARTMENT—FINE ARTS.

T. E. CROMLEY, In Charge.

MRS. ALVA M. CROMLEY.....Superintendent

JUDGE. ALMON C. WHITING.

Premiums offered, 1913.....		\$926 00
Premiums paid, 1913.....		896 00
Entries, 1913.....	756	
Paid superintendents, judges, etc., 1913.....		\$190 00
Premiums offered, 1912.....		\$1,226 00
Premiums paid, 1912.....		1,167 00
Total Number of Entries, 1912.....	1,281	
Paid superintendents, judge, etc., 1912.....		\$229 30
Premiums offered, 1911.....		\$798 00
Premiums paid, 1911.....		757 00
Total Number of Entries, 1911.....	1,012	
Paid superintendent, judge, etc., 1911.....		\$290 73
Premiums offered, 1910.....		\$796 00
Premiums paid, 1910.....		666 00
Total Number of Entries, 1910.....	557	
Paid superintendent, judges, etc., 1910.....		\$134 00

PAINTINGS, DRAWINGS, ETC.

ORIGINAL PRODUCTIONS.

JUDGE, ALMON C. WHITING.

OIL PAINTINGS.

Premiums offered.....		\$200 00
Premiums paid.....		200 00
Entries.....	76	

WATER COLOR PAINTINGS.

Premiums offered.....		\$150 00
Premiums paid.....		150 00
Entries.....	64	

PASTELS.

Premiums offered.....		\$52 00
Premiums paid.....		52 00
Entries.....	34	

Name.	Postoffice.	Awards.	Amount.
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OIL PAINTINGS.

Alice Schille.....	1166 Bryden Road, Columbus, Ohio.	Best portrait.....	\$15 00
A. C. Fauley.....	1427 Eastwood Ave., Columbus, O.	2d best portrait.....	10 00
J. W. Hardrick.....	3309 Prospect St., Indianapolis, Ind.	3d best portrait.....	5 00
A. C. Fauley.....	1427 Eastwood Ave., Columbus, O.	Best landscape.....	15 00
Mrs. A. C. Fauley.....	1427 Eastwood Ave., Columbus, O.	2d best landscape.....	10 00
Fred. N. Vance.....	Crawfordsville, Ind.	3d best landscape.....	5 00
Mrs. A. C. Fauley.....	1427 Eastwood Ave., Columbus, O.	Best marine study.....	15 00
Mr. A. C. Fauley.....	1427 Eastwood Ave., Columbus, O.	2d best marine study.....	10 00
Miss F. D. Taylor.....	604 W. State St., Chicago, Ill.	3d best marine study.....	5 00
J. W. Hardrick.....	3309 Prospect St., Indianapolis, Ind.	Best still life.....	15 00
Mrs. L. J. Pulliam.....	1020 S. 7th St., Springfield, Ill.	2d best still life.....	10 00
Ferol Sibley.....	103 W. Patterson Ave., Columbus, O.	3d best still life.....	5 00

FINE ARTS—Continued.

Name.	Postoffice.	Awards.	Amount
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PAINTINGS, DRAWINGS, ETC.—Concluded.

Mrs. A. C. Fauley.....	1427 Eastwood Ave., Columbus, O.....	Best over mantel decoration in any medium..	\$15 00
Ferol Sibley.....	103 W. Patterson Ave., Columbus, O.....	2d best over mantel decoration in any medium.....	10 00
Amalia Ludwig.....	423 S. Champion Ave., Columbus, O.....	3d best over mantel decoration in any medium.....	5 00
A. C. Fauley.....	1427 Eastwood Ave., Columbus, O.....	Best exhibition in oil painting, 3 pieces not otherwise entered.....	50 00

WATER COLOR PAINTINGS.

Alice Schille.....	1166 Bryden Road, Columbus, Ohio.....	Best portrait.....	\$12 00
Amalia Ludwig.....	423 S. Champion Ave., Columbus, O.....	2d best portrait.....	8 00
Ferol Sibley.....	103 W. Patterson Ave., Columbus, O.....	3d best portrait.....	4 00
Alice Schille.....	1166 Bryden Road, Columbus, O.....	Best landscape.....	12 00
Ferol Sibley.....	103 W. Patterson Ave., Columbus, O.....	2d best landscape.....	8 00
Mrs. L. J. Pulliam.....	1020 S. 7th St., Springfield, Ill.....	3d best landscape.....	4 00
Miss F. D. Taylor.....	604 W. State St., Chicago, Ill.....	Best still life study.....	12 00
Amalia Ludwig.....	423 S. Champion Ave., Columbus, O.....	2d best still life study.....	8 00
Ferol Sibley.....	103 W. Patterson Ave., Columbus, O.....	3d best still life study.....	4 00
Alice Schille.....	1166 Bryden Road, Columbus, Ohio.....	Best study.....	12 00
Cora E. Moore.....	2183 Cornell Road, Cleveland, Ohio.....	2d best study.....	8 00
Amalia Ludwig.....	423 S. Champion Ave., Columbus, O.....	3d best study.....	4 00
Alice Schille.....	1166 Bryden Road, Columbus, O.....	Best marine study.....	12 00
Cora E. Moore.....	2183 Cornell Road, Cleveland, Ohio.....	2d best marine study.....	8 00
Amalia Ludwig.....	423 S. Champion Ave., Columbus, O.....	3d best marine study.....	4 00
Alice Schille.....	1166 Bryden Road, Columbus, Ohio.....	Best exhibition of paintings in water colors 3 pieces not otherwise entered.....	30 00

PASTELS.

Ferol Sibley.....	103 W. Patterson Ave., Columbus, O.....	Best landscape.....	\$5 00
Amalia Ludwig.....	423 S. Champion Ave., Columbus, O.....	2d best landscape.....	3 00
Ferol Sibley.....	103 W. Patterson Ave., Columbus, O.....	Best marine study.....	5 00
Amalia Ludwig.....	423 S. Champion Ave., Columbus, O.....	2d best marine study.....	3 00
Ferol Sibley.....	103 W. Patterson Ave., Columbus, O.....	Best still life.....	5 00
Amalia Ludwig.....	423 S. Champion Ave., Columbus, O.....	2d best still life.....	3 00
Amalia Ludwig.....	423 S. Champion Ave., Columbus, O.....	Best study.....	5 00
Ferol Sibley.....	103 W. Patterson Ave., Columbus, O.....	2d best study.....	3 00
Ferol Sibley.....	103 W. Patterson Ave., Columbus, O.....	Best exhibit of pastels, 3 pieces, not otherwise entered.....	20 00

FINE ARTS—Continued.

STUDENT CLASS.

JUDGE, ALMON C. WHITING.

OIL PAINTINGS.

Premiums offered.....	\$126 00
Premiums paid.....	126 00
Entries.....	110

WATER COLOR PAINTINGS.

Premiums offered.....	\$110 00
Premiums paid.....	110 00
Entries.....	125

PASTELS.

Premiums offered.....	\$44 00
Premiums paid.....	44 00
Entries.....	47

DRAWINGS.

Premiums offered.....	\$84 00
Premiums paid.....	84 00
Entries.....	123

Name.	Postoffice.	Awards.	Amount
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OIL PAINTINGS.

Ruth Corbin.....	425 W. 2d Ave., Columbus, O.....	Best portrait.....	\$12 00
Mrs. James Conlon.....	581 E. Starr Ave., Columbus, O.....	2d best portrait.....	8 00
Louise Zunkeller.....	322 3d Ave., Dayton, Ky.....	3d best portrait.....	4 00
M. F. Dunlap.....	West Grove, Pa.....	Best landscape.....	12 00
Louise Zunkeller.....	322 3d Ave., Dayton, Ky.....	2d best landscape.....	8 00
Chas. F. Gale.....	91 N. 20th St., Columbus, O.....	3d best landscape.....	4 00
Cora E. Moore.....	2183 Cornell Road, Cleveland, Ohio.....	Best marine study.....	12 00
M. F. Dunlap.....	West Grove, Pa.....	2d best marine study.....	8 00
Bertha Coler.....	207 Hartman Bldg., Columbus, Ohio.....	3d best marine study.....	4 00
Chas. F. Gale.....	91 N. 20th St., Columbus, O.....	Best study.....	12 00
Marion Bright.....	74 N. Garfield Ave., Columbus, Ohio.....	2d best study.....	8 00
R. W. Waters.....	Columbus, O., R. R. 5.....	3d best study.....	4 00
Helen Osborn.....	Columbus, O., Sta. B., R. R. 7.....	Best exhibition of oil paintings, 3 pieces, not otherwise entered.....	30 00

WATER COLOR PAINTINGS.

Ruth Corbin.....	425 W. 2d Ave., Columbus, O.....	Best portrait.....	\$10 00
Alma Shofer.....	Cambridge, O.....	2d best portrait.....	5 00
R. K. Waters.....	Columbus, O., R. R. 5.....	3d best portrait.....	3 00
R. K. Waters.....	Columbus, O., R. R. 5.....	Best landscape.....	10 00
Alma Shofer.....	Cambridge, O.....	2d best landscape.....	5 00
Mabel Arbuckle.....	Shepard, O.....	3d best landscape.....	3 00
Harriet Kirkpatrick.....	179 Chittenden Ave., Columbus, O.....	Best marine study.....	10 00
Lena Patterson.....	Athens, O.....	2d best marine study.....	5 00
Cora E. Moore.....	2183 Cornell Road, Cleveland, Ohio.....	3d best marine study.....	3 00
R. K. Waters.....	Columbus, O., R. R. 5.....	Best still life study.....	10 00
Elizabeth Davis.....	6025 Jefferson Ave., Chicago, Ill.....	2d best still life study.....	5 00
Ann Cheney.....	357 W. 63d St., Chicago, Ill.....	3d best still life study.....	3 00
R. K. Waters.....	Columbus, O., R. R. 5.....	Best study.....	10 00
Ruth Corbin.....	425 W. 2d Ave., Columbus, O.....	2d best study.....	5 00
Virginia Cole.....	513 E. Rich St., Columbus, O.....	3d best study.....	3 00
Harriet Kirkpatrick.....	179 Chittenden Ave., Columbus, Ohio.....	Best exhibition of paintings in water colors, 3 pieces, not otherwise entered.....	20 00

FINE ARTS—Continued.

Name.	Postoffice.	Awards.	Amount.
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PASTELS.

Lillian Coler	207 Hartman Building, Columbus, O.	Best landscape	\$5 00
Lena Patterson	Athens, O.	2d best landscape	3 00
Bertha Coler	207 Hartman Building, Columbus, O.	Best still life	5 00
Lena Patterson	Athens, O.	2d best still life	3 00
Marion Bright	74 N. Garfield Ave., Columbus, O.	Best study	5 00
R. K. Waters	Columbus, O., R. R. 5	2d best study	3 00
Georgia Howard	1024 E. 19th St., Indianapolis, Ind.	Best exhibit of pastels, 3 pieces not otherwise entered	20 00

DRAWINGS.

Amalia Ludwig	423 S. Champion Ave., Columbus, O.	Best portrait, charcoal	\$5 00
Perol Sibley	103 W. Patterson Ave., Columbus, O.	2d best portrait, charcoal	3 00
Perol Sibley	103 W. Patterson Ave., Columbus, O.	Best still life	5 00
Amalia Ludwig	423 S. Champion Ave., Columbus, O.	2d best still life	3 00
Louise Zunkeller	322 3d Ave., Dayton, Ky.	Best drawing from cast	5 00
Grace E. Young	850 Oak St., Columbus, O.	2d best drawing from cast	3 00
Helen Osborn	Columbus, O., Sta. B, R. R. 7	Best pen and ink drawing study	5 00
Amalia Ludwig	423 S. Champion Ave., Columbus, O.	2d best pen and ink drawing study	3 00
Will Rannels	331 Glenwood Ave., Zanesville, O.	Best pen and ink drawing, still life	5 00
Marie C. Rainey	6034 Jefferson Ave., Chicago, Ill.	2d best pen and ink drawing, still life	3 00
Marie C. Rainey	6034 Jefferson Ave., Chicago, Ill.	Best pencil drawing still life	5 00
Amalia Ludwig	423 S. Champion Ave., Columbus, O.	2d best pencil drawing still life	3 00
Perol Sibley	103 W. Patterson Ave., Columbus, O.	Best pencil drawing study	5 00
Elizabeth Davis	6025 Jefferson Ave., Columbus, O.	2d best pencil drawing study	3 00
Will Rannels	331 Glenwood Ave., Zanesville, O.	Best pencil drawing from cast	5 00
Mrs. L. P. Pulliam	1020 S. 7th St., Springfield, Ill.	2d best pencil drawing from cast	3 00
Mrs. L. J. Pulliam	1020 S. 7th St., Springfield, Ill.	Best display of 3 drawings in pencil, not otherwise entered	10 00
Marion Bright	74 N. Garfield Ave., Columbus, O.	Best display of 3 drawings in charcoal, not otherwise entered	10 00

MINIATURE.

JUDGE, ALMON C. WHITING.

Premiums offered	\$15 00
Premiums paid	15 00
Entries	14

Name.	Postoffice.	Awards.	Amount.
Alice Schille	1166 Bryden Road, Columbus, O.	Best specimen	\$10 00
Amalia Ludwig	423 S. Champion Ave., Columbus, O.	2d best specimen	5 00

FINE ARTS—Continued.

MODELING.

JUDGE, ALMON C. WHITING.

Premiums offered \$69 00
 Premiums paid 69 00
 Entries 12

Name.	Postoffice.	Awards.	Amount.
Grace E. Young.....	850 Oak St., Columbus, O.....	Best animal.....	\$15 00
Amalia Ludwig.....	423 S. Champion Ave., Co- lumbus, O.....	2d best animal.....	8 00
Amalia Ludwig.....	423 S. Champion Ave., Co- lumbus, O.....	Best figure.....	15 00
Tom Jackson.....	Amlin, O., R. R. 1.....	2d best figure.....	8 00
R. K. Waters.....	Columbus, O., R. R. 5.....	Best portrait, bust.....	15 00
Grace E. Young.....	850 Oak St., Columbus, O.....	2d best portrait, bust.....	8 00

DESIGNING.

JUDGE, ALMON C. WHITING.

Premiums offered \$42 00
 Premiums paid 42 00
 Entries 28

Name.	Postoffice.	Awards.	Amount.
Mabel Arbuckle.....	Shepard, O., 425 W. 2d Ave.....	Best most original book cover.....	\$4 00
Ruth Corbin.....	Columbus, O.....	2d best most original book cover.....	2 00
Mark Russell.....	1087 S. High St., Columbus, O.....	Best design stained glass window.....	15 00
Mabel Arbuckle.....	Shepard, O.....	Best original wall paper design.....	4 00
Ferol Sibley.....	103 W. Patterson Ave., Co- lumbus, O.....	2d best original wall paper design.....	2 00
Amalia Ludwig.....	423 S. Champion Ave., Colum- bus, O.....	Best collection practical wall paper design, not more than 4.....	15 00

WOOD CARVING—AMATEUR.

JUDGE, ALMON C. WHITING.

Premiums offered \$70 00
 Premiums paid 62 00
 Entries 22

Name.	Postoffice.	Awards.	Amount.
Mrs. W. S. Holton.....	611 N. Wittenberg Ave., Springfield, O.....	Best chair.....	\$4 00
Mabel Hain.....	1749 N. 4th St., Colum- bus, O.....	2d best chair.....	2 00
Mrs. W. S. Holton.....	611 N. Wittenberg Ave., Springfield, O.....	Best chest.....	4 00
Mrs. W. S. Holton.....	611 N. Wittenberg Ave., Springfield, O.....	Best sconce.....	4 00
Mrs. W. S. Holton.....	611 N. Wittenberg Ave., Springfield, O.....	Best handkerchief box.....	4 00
Miss Winifred Holton.....	611 N. Wittenberg Ave., Springfield, O.....	2d best handkerchief box.....	2 00
Mrs. W. S. Holton.....	611 N. Wittenberg Ave., Springfield, O.....	Best picture frame.....	4 00
Miss Winifred Holton.....	611 N. Wittenberg Ave., Springfield, O.....	2d best picture frame.....	2 00
Mrs. W. S. Holton.....	611 N. Wittenberg Ave., Springfield, O.....	Best book rack.....	4 00
Mrs. Chas. N. Hunter.....	Springfield, O., R. R. 5.....	2d best book rack.....	2 00
Mary Godard.....	78 S. 3d St., Columbus, O.....	Best magazine rack.....	4 00
Mrs. W. S. Holton.....	611 N. Wittenberg Ave., Springfield, O.....	2d best magazine rack.....	2 00

FINE ARTS—Continued.

Name.	Postoffice.	Awards.	Amount.
WOOD CARVING—AMATEUR—Concluded.			
Mrs. W. S. Holton.....	611 N. Wittenberg Ave., Springfield, O.....	Best pipe rack.....	\$4 00
Mrs. W. S. Holton.....	611 N. Wittenberg Ave., Springfield, O.....	Best plate rack.....	4 00
Mrs. Chas. N. Hunter.....	Springfield, O., R. R. 5.....	Best specimen.....	4 00
Mrs. W. S. Holton.....	611 N. Wittenberg Ave., Springfield, O.....	2d best specimen.....	2 00
Mabel Hain.....	1749 W. 4th Ave., Columbus, O.....	Best display (3 pieces).....	10 00

ARTS AND CRAFTS—OPEN TO ALL.

JUDGE, ALMON C WHITING.

Premiums offered.....	\$186 00
Premiums paid.....	158 00
Entries.....	150

Name.	Postoffice.	Awards.	Amount.
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HAND WROUGHT METAL, SILVER, COPPER OR BRASS.

Eva B. Masteller.....	Newark, O.....	Best platter.....	\$4 00
Mary Godard.....	78 S. 3d St., Columbus, O.....	2d best platter.....	2 00
Carrie Masteller.....	Newark, O.....	Best tray or server.....	4 00
Mary Godard.....	78 S. 3d St., Columbus, O.....	2d best tray or server.....	2 00
R. K. Waters.....	Columbus, O., R. R. 5.....	Best spoon.....	4 00
Mary Godard.....	78 S. 3d St., Columbus, O.....	2d best spoon.....	2 00
Eva B. Masteller.....	Newark, O.....	Best bowl.....	4 00
Mary Godard.....	78 S. 3d St., Columbus, O.....	2d best bowl.....	2 00
Elizabeth Davis.....	6025 Jefferson Ave., Chicago, Ill.....	Best box.....	4 00
Mary Godard.....	78 S. 3d St., Columbus, O.....	2d best box.....	2 00
Mrs. L. C. Covault.....	Mechanicsburg, O.....	Best pair of candlesticks.....	4 00
Elizabeth Davis.....	6025 Jefferson Ave., Chicago, Ill.....	2d best pair of candlesticks.....	2 00
Mrs. L. P. Warman.....	2727 Harris Ave., Norwood, O.....	Best pair candle shades.....	4 00
Mrs. G. E. Brittian.....	900 Manhattan Ave., Dayton, Ohio.....	2d best pair candle shades.....	2 00
Ann Cheney.....	357 W. 63d St., Chicago, Ill.....	Best lampshade.....	4 00
Elizabeth Davis.....	6025 Jefferson Ave., Chicago, Ill.....	2d best lampshade.....	2 00
Carrie Masteller.....	120 Elmwood Ave., Newark, O.....	Best desk set, blotter, holder, ink stand.....	4 00
Mrs. G. E. Brittian.....	900 Manhattan Ave., Day- ton, O.....	2d best desk set, blotter, holder, ink stand.....	2 00
Marie C. Rainey.....	6034 Jefferson Ave., Chicago, Ill.....	Best specimen.....	4 00
Eva B. Masteller.....	120 Elmwood Ave., Newark, O.....	2d best specimen.....	2 00
Carrie Masteller.....	120 Elmwood Ave., Newark, O.....	Best specimen of etching.....	4 00
Mrs. Chas. N. Hunter.....	Springfield, O., R. R. 5.....	2d best specimen of etching.....	2 00
Ann Cheney.....	357 W. 63d St., Chicago, Ill.....	Best sugar and cream.....	4 00
Carrie Masteller.....	120 Elmwood Ave., Newark, O.....	Best scone.....	4 00
Mary Godard.....	78 S. 3d St., Columbus, O.....	2d best scone.....	2 00

JEWELRY.

Carrie Masteller.....	120 Elmwood Ave., Newark, O.....	Best ring.....	\$4 00
Mary Godard.....	78 S. 3d St., Columbus, O.....	2d best ring.....	2 00
R. K. Waters.....	Columbus, O., R. R. 5.....	Best bracelet.....	4 00
Ann Cheney.....	357 W. 63d St., Chicago, Ill.....	Best chain and pendant.....	4 00
Elizabeth Davis.....	6025 Jefferson Ave., Chicago, Ill.....	2d best chain and pendant.....	2 00
Carrie Masteller.....	120 Elmwood Ave., Newark, O.....	Best hat pin.....	4 00
Eva B. Masteller.....	120 Elmwood Ave., Newark, O.....	2d best hat pin.....	2 00
Elizabeth Davis.....	6025 Jefferson Ave., Chicago, Ill.....	Best brooch.....	4 00
Cora E. Moore.....	2183 Cornell Road, Cleve- land, O.....	2d best brooch.....	2 00
Marie C. Rainey.....	6034 Jefferson Ave., Chicago, Ill.....	Best specimen.....	4 00
Mabel Arbuckle.....	Shepard, O.....	2d best specimen.....	2 00

FINE ARTS—Concluded.

Name.	Postoffice.	Awards.	Amount.
TOOLED LEATHER.			
Ann Cheney.....	357 W. 63d St., Chicago, Ill.	Best magazine cover.....	\$4 00
Elizabeth Davis.....	6025 Jefferson Ave., Chicago, Ill.	2d best magazine cover.....	2 00
Cora E. Moore.....	2183 Cornell Road, Cleveland, Ohio	2d best brooch.....	2 00
Marie C. Rainey.....	6034 Jefferson Ave., Chicago, Ill.	Best desk set.....	4 00
Winifred Holton.....	611 N. Wittenberg Ave., Springfield, O.	2d best desk set.....	2 00
Winifred Holton.....	611 N. Wittenberg Ave., Springfield, O.	Best table mat.....	4 00
Mrs. W. S. Holton.....	611 N. Wittenberg Ave., Springfield, O.	2d best table mat.....	2 00
Elizabeth Davis.....	6025 Jefferson Ave., Chicago, Ill.	Best card case.....	4 00
Mary Godard.....	78 S. 3d St., Columbus, O.	2d best card case.....	2 00
Mrs. C. M. Rambo.....	53 S. 4th St., Zanesville, O.	Best bag.....	4 00
Mrs. Golda Gorman.....	212 Superior St., Kokomo, Ind.	2d best bag.....	2 00
Mrs. C. M. Rambo.....	53 S. 4th St., Zanesville, O.	Best purse.....	4 00
Grace B. Matson.....	Ashtabula, O.	2d best purse.....	2 00
Eva B. Masteller.....	Newark, O.	Best belt.....	4 00
Elizabeth Davis.....	6025 Jefferson Ave., Chicago, Ill.	2d best belt.....	2 00
Elizabeth Leigh.....	Groveport, O.	Best specimen.....	4 00
Mrs. C. M. Rambo.....	53 S. 4th St., Zanesville, O.	2d best specimen.....	2 00

BASKETRY—AMATEUR.

JUDGE, ALMON C. WHITING.

Premiums offered.....	\$48 00
Premiums paid.....	46 00
Entries.....	49

Name.	Postoffice.	Awards.	Amount.
Mary Godard.....	78 S. 3d St., Columbus, O.	Best sweet grass basket.....	\$4 00
Mary Godard.....	78 S. 3d St., Columbus, O.	Best pin needle basket.....	4 00
Nellie E. Carson.....	70 University Ave., Delaware, O.	2d best pin needle basket.....	2 00
Miss Clara Weiht.....	Athens, O.	Best raffia basket, large.....	4 00
Mrs. V. E. Brubacker.....	Clintonville, O.	2d best raffia basket, large.....	2 00
Bertha Krauss.....	78 S. 3d St., Columbus, O.	Best raffia basket, small.....	4 00
Mary Godard.....	78 S. 3d St., Columbus, O.	2d best raffia basket, small.....	2 00
Mabel Arbuckle.....	Shepard, O.	Best reed basket, large.....	4 00
Mrs. Emily H. Masteller.....	120 Elmwood Ave., Newark, O.	2d best reed basket, large.....	2 00
Mrs. Emily H. Masteller.....	120 Elmwood Ave., Newark, O.	Best reed basket, small.....	4 00
Mabel Arbuckle.....	Shepard, O.	2d best reed basket.....	2 00
Sybil Emerson.....	1832 Summit St., Columbus, O.	Best tray.....	4 00
Mabel Arbuckle.....	Shepard, O.	2d best tray.....	2 00
Mrs. Golda Gorman.....	212 Superior St., Kokomo, Ind.	Best specimen.....	4 00
Mrs. W. E. Wilder.....	771 N. High St., Columbus, O.	2d best specimen.....	2 00

SCHOOL DEPARTMENT.

AUGUST HECKMAN.....	Superintendent
Premiums offered, 1913.....	\$3,000 00
Premiums paid, 1913.....	2,047 00
Entries, 1913.....	66

COUNTY SCHOOLS.

CHAMPAIGN COUNTY.

SUPT. BERT HIGHLAND, Mechanicsburg, O.

10 Rooms.....	\$30 00
Class A.....	3 00
Class C.....	20 00
Total.....	\$53 00

SUPT. J. R. PRICE, Magrew, O.

9 Rooms.....	\$27 00
Class A.....	10 00
Class B.....	10 00
Class C.....	30 00
Total.....	\$77 00
Total for County.....	\$130 00

FAIRFIELD COUNTY.

SUPT. E. E. RAY, Basil, O.

7 Rooms.....	\$21 00
Class A.....	15 00
Class B.....	10 00
Class C.....	50 00
Class D.....	75 00
Total.....	\$171 00

FRANKLIN COUNTY.

SUPT. WALTER JONES, Hilliards, O.

11 Rooms.....	\$33 00
Class B.....	10 00
Class C.....	25 00
Total.....	\$68 00

JEFFERSON COUNTY.

SUPT. MISS ANNA ASHBROOK, Mingo Junction, O.

1 Room.....	\$3 00
Class A.....	15 00
Class B.....	10 00
Class C.....	25 00
Total.....	\$53 00

PUTNAM COUNTY.

SUPT. H. J. BENNING, Glandorf, O.

58 Rooms.....	\$174 00
Class A.....	15 00
Class B.....	10 00
Class C.....	50 00
Class D.....	160 00
Total.....	\$399 00

STARK COUNTY.

SUPT. CHAS. W. WEEKS, Canton, O., 1640 Woodlawn Ave.

23 Rooms.....	\$69 00
Class A.....	15 00
Class B.....	10 00
Class C.....	50 00
Total.....	\$144 00

AGRICULTURAL REPORT.

COUNTY SCHOOLS—Concluded,

VAN WERT COUNTY.

SUPT. RAY FIFE, Van Wert, O.

40 Rooms.....	\$120 00
Class A.....	15 00
Class B.....	10 00
Class C.....	25 00
Class D.....	100 00
Total.....	\$270 00

CITY SCHOOLS.

ATHENS, O.

SUPT. B. O. SKINNER, Athens, O.

4 Buildings.....	\$40 00
Class A.....	15 00
Class C.....	25 00
Total.....	\$80 00

CIRCLEVILLE, O.

MISS ELLA NOONAN, Circleville, O.

School Display.....	\$10 00
Class A.....	15 00
Class C.....	50 00
Class D.....	100 00
Total.....	\$175 00

COLUMBUS, O.

MISS CHLOE D. McGLINCHAY, 634 E. Main St., Columbus, O.

School Display.....	\$10 00
Class A.....	15 00
Total.....	\$25 00

SIDNEY, O.

SUPT. H. R. McVAY, Sidney, O.

6 Buildings.....	\$60 00
Class C.....	50 00
Class D.....	150 00
Total.....	\$260 00

VAN WERT, O.

SUPT. J. P. SHARKEY, Van Wert, O.

5 Buildings.....	\$50 00
Class C.....	50 00
Class C.....	75 00
Total.....	\$175 00

INDIVIDUAL DISPLAYS.

Name.	County.	Postoffice.	Amount.
R. M. Giffen.....	Belmont.....	St. Clairville.....	\$6 00
Jno. K. Lodge.....	Belmont.....	St. Clairville, No. 1.....	4 00
Chester Broughton.....	Butler.....	Sommerville, No. 1.....	6 00
Ralph Townsend.....	Columbiana.....	Rogers, No. 1.....	6 00
Albert Dickel.....	Erie.....	Huron, No. 2.....	6 00
Arthur Lafene.....	Erie.....	Bellevue, No. 5.....	4 00
Paul J. Bell.....	Guernsey.....	Cambridge.....	6 00
David M. Lyle.....	Harrison.....	Cadiz, No. 1.....	6 00
Owen N. Barr.....	Highland.....	East Monroe.....	6 00
Evert Sevits.....	Knox.....	Denville.....	4 00
Willie Sevits.....	Knox.....	Denville.....	3 00
Walter P. Burgess.....	Knox.....	Mt. Vernon.....	6 00
Wade Brewster.....	Lake.....	Perry.....	6 00
Paul E. Andre.....	Lawrence.....	Hanging Rock.....	6 00
Gerald Stroup.....	Madison.....	South Solon.....	6 00
Wade C. Ropp.....	Richland.....	Shiloh, No. 2.....	6 00
Chas. A. Brooklyn.....	Sandusky.....	Clyde, No. 5.....	4 00
Carl Vickery.....	Sandusky.....	Bellevue, No. 7.....	6 00

EIGHTH DEPARTMENT—MACHINERY AND AGRICULTURAL IMPLEMENTS.

P. G. EWART, In Charge.

T. J. PALMER.....	Superintendent
CARL WILLIAMS.....	Assistant Superintendent
Received from sale of space, 1913.....	\$2,372 10
Paid superintendents, etc., 1913.....	115 00
Received from sale of space, 1912.....	\$2,191 00
Paid superintendents, etc., 1912.....	130 50
Received from sale of space, 1911.....	\$2,362 20
Paid superintendents, etc., 1911.....	85 50
Received from sale of space, 1910.....	\$2,366 10
Paid superintendents, etc., 1910.....	129 50

MACHINERY AND AGRICULTURAL IMPLEMENTS.

Name of Exhibitor.	Postoffice.	Exhibits.
Adams & Co., J. D.....	Columbus, O.....	Kerosene Tractor Rollers, Steam Traction Engines, etc.
Adams' Husker Co.....	Marysville, O.....	Corn Huskers, Grain Elevators and Saw Frames.
Adjustable Coupler Co.....	Columbus, O.....	The Adjustable Coupler.
Akron Cultivator Co.....	Akron, O.....	Cultivators, Platform Cutters, Potato Diggers.
Alamo Mfg. Co.....	Hillsdale, Mich.....	Alamo Gasoline and Oil Engines.
American Steel Wire Co.....	Chicago, Ill.....	American Steel Fence Posts.
American Seeding-Machine Co.....	Springfield, O.....	Drills, Potato Planters, Cider Mills and Corn Planters, etc.
American Wagon Co.....	Dixon, Ill.....	Wagon Beds.
Appleton Mfg. Co.....	Batavia, Ill.....	Stationary Engines, Corn Shellers, Feed Cutters and Truck Wagons.
Arbuckle & Ryan.....	Toledo, O.....	Air Water System, Electric Ruralite Plants, Power Washers and Gasoline Engines.
Ashland Mfg. Co.....	Ashland, O.....	Air Shoes, Belt Fasteners.
Associated Mfgs. Co.....	Waterloo, Iowa.....	Concrete Mixers, Cream Separators, Man Engines
Auglaize Motor Car Co.....	New Bremen, O.....	Feed Grinders, Spray Pumps, etc.
Aultman-Taylor Machine Co.....	Mansfield, O.....	Motor Trucks.
Avery Co.....	Indianapolis, Ind.....	Steam Engines, Gas Tractors and Separators.
Baker Co., A. D.....	Swanton, O.....	Motor Trucks, Bottom Plows, Separators, etc.
Bauer Bros. Co.....	Springfield, O.....	Traction Engines, Steam Road Rollers and Separators.
Bennett, H. L. & Co.....	Westerville, O.....	Portable Engine, Feed Grinders and Stacking Elevators.
Birdsell Mfg. Co.....	Columbus, O.....	Corn Cutters, Ditchers and Stump Rollers.
Bird & Son, F. W.....	Columbus, O.....	Clover Hullers, Farm Wagons (5 gears.).
Bimel Buggy Co.....	Sidney, O.....	Neponset, Roofing.
Bluffton Mfg. Co.....	Bluffton, O.....	Buggies and Runabouts.
Blount Plow Works.....	Evansville, Ind.....	Cream Separators, Electric Washers, Feed Grinders, Gasoline Engines and Farm Fence Gates.
Bond Steel Post Co.....	Adrian, Mich.....	Walking Plows, Sulky Plows and Cultivators.
Bremen Engine Co.....	Bremen, O.....	Farm and Lawn Fences and Gates.
Bryan Plow Co.....	Bryan, O.....	Caloric and Electric Pumping Engines and Water Systems.
Brown, Manly Plow Co.....	Columbus, O.....	Disc Harrows, Walking Plows and Tank Heaters.
Brown Mfg. Co.....	Zanesville, O.....	Lawn Swings, Wagon Implements, Corn Shellers, etc.
Burkett Mfg. Co.....	Columbus, O.....	Wagons Complete, Harrows, Land Rollers, Plows, etc.
Bucher & Gibbs Plow Co.....	Canton, O.....	Belt Power Hay Presses.
Case Plow Works, J. I.....	Columbus, O.....	Riding Plows, Hand Plows, Double Disc Harrows, Potato Diggers, etc.
Canton Culvert Co.....	Canton, O.....	Corn Planters, Plows, Disc Harrows, etc.
Celina Mfg. Co.....	Celina, O.....	Zyro Metal Silo and Culverts.
Collins Plow Co.....	Quincy, Ill.....	Monarch Wind Mills, Iron End Pumps and Steel Tanks.
Columbus Mail Crane Co.....	Columbus, O.....	Riding and Walking Combined Plows, Steam Beam Breaking Plow, Hay Pressers Wood and Steel Frame and Hay Presses.
Collins, Geo.....	Mt. Vernon, O.....	The Victor Sanitary Churn.
Colvin, Chase & Co.....	S. Charleston, O.....	Queen Grader and Cleaner.
Cook Motor Co.....	Delaware, O.....	Stay There Fence Posts and Galvanized Farm Gates.
Cyclone Woven Wire Fence Co.....	Columbus, O.....	Stationary and Portable Gas and Gasoline Engines.
Dayton Pitless Scale Co.....	Dayton, O.....	Ornamental Fences and Gates.
DeVore, L. G.....	715 Neil Ave., Columbus, O.....	Dayton Pitless Stock Scales.
Domestic Engine & Pump Co.....	Shippensburg, Pa.....	Grain grader and cleaner.
Drummond Wire Fence Co.....	Chillicothe, O.....	Power Sprayers, Portable Engines and Deep Well Pumps.
		Farm and Lawn Fences and Gates.

MACHINERY AND AGRICULTURAL IMPLEMENTS—Continued.

Name of Exhibitor.	Postoffice.	Exhibits.
Elite Mfg. Co.	Ashland, O.	Elite Concrete Mixer.
Elmwood Gardens.	Elmwood, O.	Display of Seed Corn.
Emerson-Brantingham Imp. Co.	Indianapolis, Ind.	Grain Drills, Disc, Harrows, Plows, Engines, Bug- gies, etc.
Empire Cream Separator Co.	Bloomfield, N. J.	Empire Cream Separators and Stationary Engines.
Fairbanks-Morse Co.	Cincinnati, O.	Oil Traction Engines, Oil Engines, Fairbanks Stock Scales and Light Plant complete on Storage Battery.
Fairmont Creamery Co.	Columbus, O.	Red Cream Cans.
Famous Fertilizer Co.	Columbus, O.	Fertilizer.
Petta Water Softener Co.	Richmond, Ind.	Portable Hog Houses, Hog Fountains and Heater Tanks.
Plint and Walling Co.	Kendallville, Ind.	Wind Mills, Steel Stock Tanks, Hand and Power Pumps and Electric Plants complete.
Pinchbaugh Mfg. Co.	York, Pa.	Portable Gas Engines, Gas Tractor, and Feed Grinders.
Findlay Carriage Co.	Findlay, O.	Buggies and Surreys.
Poos Gas Engine Co.	Springfield, O.	Engines, Portable Pumping Outfits, Rollers and Storage Battery Outfits.
Fuller-Johnson Co.	Madison, Wis.	H. P. Gasoline and Kerosene Engines.
Gale Mfg. Co.	Albion, Mich.	Rollers, Harrows, Corn Planters, Walking and Breaking Plows, full line of small tillage tools.
Garden City Feeder Co.	Columbus, O.	Self Feeder for Thresher.
Goss Bros.	Baltimore, O.	Iron Clad Farm Gates.
Good Roads Machinery Co.	Pittsburgh, Pa.	Steam Rollers, Oil Distributing Wagons, full line of Road Drags, Scrapers and Plows.
Grimm Mfg. Co.	Cleveland, O.	Maple Evaporator for making Maple Syrup and Sugar.
Gramont Traction Plow Co.	Springfield, O.	Gramont Traction Plow.
Harris Mfg. Co.	Salem, O.	Harris Stalls and Stanchions, Litter and Feed Carriers.
Harrison, W. R.	Massillon, O.	Tornado Feed Cutters and Wood Silos.
Heller-Aller Co.	Napoleon, O.	Baker Wind Mills and full line of Power and Hand Pumps.
Heer Engine Co.	Portsmouth, O.	Oil Engines, Oil Engines on Steel Trucks, and Oil Tractors.
Hist Potato Mach'y Co.	Alliance, O.	Star Potato Diggers and Planters.
Hoffman-Fenner Co.	Plymouth, O.	The Famous Adjustable Sieve.
Huffman, E. H.	Columbus, O.	Phaetons, Storm Buggies, Farm Wagons, Iron Tanks, McCormick Dowle Disc Harrows and all kinds of Farm Implements.
Hunt-Helm-Ferris Co.	Harvard, Ill.	Steel Stalls, Star Litter Carriers, Hayng Tools, Cen- tury and Flexo Barn Door Hangers, Barn Door Hardware and Stock Tank Heaters.
Huber Mfg. Co.	Marion, O.	H. P. Steam Engines, Gasoline Tractors and Gang Plows.
Hunt & Son, No. F.	Columbus, O.	Buckeye Farm Gates.
Illinois Gate Co.	Raymond, Ill.	Gates and Fittings.
International Harvester Co.	Columbus, O.	Gasoline Engines, Corn Planters, Grain Drills, Wagons Shredders, Hay Presses, Manure Spreaders, etc.
International Gas Engine Co.	Cudahy, Wis.	H. P. Ineco Engines.
Indiana Silo Co. (Albert Seeley)	Anderson, Ind.	Silos and Papis Cutters.
Iron Crib & Bin Co.	Wooster, O.	The Marshall Iron Corn Crib.
James Mfg. Co.	Fort Atkinson, Wis.	Sanitary Cow Stalls, Steel Bull Pen, and Mascot Litter Carriers.
Janesville Machine Co.	Janesville, Wis.	Walking Plows, Gang Plows, Chain Drive Planters and Cultivators.
Jacobson Machine Co.	Warren, Pa.	Gas and Gasoline Engines, Hopper, cooled type, stationary and portable.
Jeschle Mfg. Co.	Bellevue, O.	Cyclone Corn Cutter and Tile Ditcher.
F. G. Johnston.	Columbus, O.	Corn Mills, Engines, Hay Presses, etc.
Johnson Portable Fence Co.	Columbus, O.	Johnson's Postless Fence Coupler.
The Johnston Sales Co.	Columbus, O.	R. C. H. Touring Car.
Kenney Machine Co.	Indianapolis, Ind.	Engines and Bailing Machines.
Lansing Wagon Works.	Lansing, Mich.	Farm Wagons.
Lean & Roderick Mfg. Co.	Mansfield, O.	Harrows, Corn Rollers, Garden Plows, etc.
Louisville Brick & Tile Co.	Louisville, O.	Success Silo Made of Tile.
Louden Mach'y Co.	Fairfield, Iowa.	Hay carriers, Hay Forks, Barn Door Hangers, Cow Stanchions, Cow Stalls, Feed Carriers, etc.
Manson-Campbell Co.	Detroit, Mich.	Grain Graders, Cleaners and Separators.
May, L. C.	Columbus, O.	The Park Tire and Spoke Tightener.
Maytag Company.	Indianapolis, Ind.	Power Washing Machines, Huskers and Shredders, and Hand Washing Machines.
Mendenhall & Bros. Guth.	Waverly, O.	Automatic Pivot Gates.
Miles Mfg. Co.	Jackson, Mich.	Concrete Mixer, and Block Machines.
Minneapolis Threshing Ma- chine Co.	Hopkins, Minn.	H. P. Traction Engines and Gasoline Traction Engines.
Miller Anchor Co.	Norwalk, O.	The Ideal Automatic Feeder and Exerciser.
Morton Motor Plow Co.	Galion, O.	Motor Plows and Tractors.
McClure Co.	Saginaw, Mich.	Silos and Inner Anchors.
McKendry & Eyler.	Columbus, O.	Farms for Sale.
National Fire Roofing Co.	Columbus, O.	Natco Tile Silo, also for building homes and farm buildings.

MACHINERY AND AGRICULTURAL IMPLEMENTS—Concluded.

Name of Exhibitor.	Postoffice.	Exhibits.
New Idea Seed Cleaner Co. Noble & Norton	Shiloh, O. Arcade Bldg., Columbus, O.	Grains and Seed Cleaners. Building material for exterior stucco, interior plaster, elastic floors, durable roof.
Ohio Moline Plow Co.	Columbus, O.	Buggies, Farm Wagons, Farm Trucks, Wheat Binders, Hay Rakes, Hay Loaders, Walking Plows, etc.
Ohio Rake Company.	Dayton, O.	Corn Harvesters, Harrows, Hay Loaders, Drills, Potato Planters and Land Rollers.
Ohio Cultivator Co.	Bellevue, O.	Riding Cultivators, Harrows, Walking Plows, Land Rollers, Tooth Harrows and Hay Presses.
Oliver Chilled Plow Works	South Bend, Ind.	Manure Spreaders, Corn Drills, Plows, Land Rollers and Farm Trucks.
Ohio Mfg. Co.	Springfield, O.	The Universal Animal Rock.
One Minute Washer Co.	Sandusky, O.	One Minute Washing Machines.
Parlin & Orendorff	Canton, Ill.	Plows, Harrows, Potato Diggers, etc.
Page Woven Wire & Fence Co.	Adrian, Mich.	Lawn and Farm Gates and Fences.
Perfecto Silo & Cistern Co.	Delaware, O.	Perfect Concrete Block Silo.
Perfect Gate Co.	Forest, O.	Perfect Farm Gate.
Pfeifer, L. W.	Canton, O.	Wire Fence Splicer and Crimper.
Pittsburg Steel Co.	Pittsburg, Pa.	Farm and Lawn Fence, Jumbo Fences, Chicken and Rabbit Fences.
Probasco, A. B.	Lebanon, O.	The Ratchet Wire Splicer.
Racine Sattley Co.	Indianapolis, Ind.	Corn Planters, Riding Cultivators, Plows, Harrows and Buggies.
Reynolds, H. M.	Grand Rapids, Mich.	Reynolds' Asphalt Flexible Shingles.
Ross, E. W.	Springfield, O.	Cutters, Alfalfa Mill, Manure Spreaders, and Silo.
Rosenthal Corn Husker Co.	Milwaukee, O.	Rosenthal Corn Husker.
Rowe Mfg. Co.	Galesburg, Ill.	Can't Sag Farm Gates.
Russell & Company	Massillon, O.	Traction Engines, Threshers, Latest Model New Russell Thresher with M. F. F. Wind Stacker and Boss Feeder Attached.
Rude Bros. Mfg. Co.	Liberty, Ind.	Rude Manure Spreaders and Grain Drills.
Rumely Products Co.	Columbus, O.	Corn Shellers, Feed Grinders, Traction Engines and Machinery of all kinds.
Street Gate Co.	Wagoner, Ill.	Automatic Farm Gate.
Stewart, Warner	Stoughton, Wis.	Stoughton Wagon with combination bed.
Stoughton Mfg. Co.	1645 N. High St., Columbus, O.	Shur Shut Gate Hinges, Asphalt Roofing, Paints and Coatings and Asphalt Shingles.
Stowell Mfg. & Sales Co.	New Lexington, O.	Gasoline Engines, Star Feed Mills and Forges.
Star Mfg. Co.	South Bend, Ind.	Casady Gang Plows, Sulky Plows and Walking Plows.
South Bend Chilled Plow Co.	Cleveland, O.	Farm Fences and Gates.
Superior Fence Co.	Springfield, O.	Engines of all kinds, Duplex Mills and Emory Wheels.
Superior Gas Engine Co.	Muncy, Pa.	Crushing and Grinding Mills, Burr Mills, Corn Separators, and Corn Shellers.
Sprout-Waldron Co.	Anderson, Ind.	Rex Hog House, Farm Fence Gates and Fence Tools, Engines, portable and skid.
Spring Steel Fence & Wire Co.	Columbus, O.	Grain Drills, Mowing Machines, Hay Rakes and Hay Loaders.
Taylor, E. D.	Springfield, O.	Farm Wagons and Drays complete.
Thomas Mfg. Co.	Lynchburg, Va.	Sanitary Hog Watering and Stock Tanks and Metal Shingles.
Thornhill Wagon Co.	London, O.	Farm Wagons and Dump Wagons.
Thomas & Armstrong Co.	Troy, O.	Lighting and Heating Plant complete, generator operating, engine without carburetor.
Troy Wagon Works	Columbus, O.	Cream Separators, Gasoline Engines and Power Washing Machines.
Uhrindit Gas Generator Co.	Lansing, Mich.	Vim Motor running Maytag Washer.
United Engine Co.	Sandusky, O.	Traction Engines.
Vim Motor Co.	Cleveland, O.	Farm and Lawn Fences and Gates.
Wallis Mfg. Co.	Decatur, Ill.	Buckeye Wire Stretcher.
Ward Fence Co.	Westerville, O.	West Tile Ditching Machines.
Westerville Novelty Co.	Lynchburg, O.	Forced Feed Crushers for crushing rock and grinding limestone.
West Tile Ditching Machine Co.	Wheeling, W. Va.	The Little Wonder Wire Mender and Fence Tightener.
Wheeling Mould & Foundry Co.	Columbus, O.	Concrete Mixers, Road Rollers, Road Graders, Wheel Barrows, Heating Kettles, Heating Pots and Scrapers
Whitefield, R. F.	507 Brunson Bldg., Columbus, Ohio.	Concrete Mixers, American Motor Rollers, Austin Wagons, Road Graders, and Rock Drills.
Williams, W. W.	Columbus, O.	Mowers, Binders, Harrows, Cultivators, Manure Spreaders, Engines, and Farm Scales.
Williams Contractors' Supply Co.	Columbus, O.	Buckeye Farm Fence.
Wood, Walter A. Co.	Columbus, O.	
Youngstown Sheet & Tube Co.	Youngstown, O.	

NINTH DEPARTMENT—MECHANICS' AND MANUFACTURERS' PRODUCTS.

C. H. GANSON, In Charge.

E. K. HURNES.....	Superintendent
Received from sale of space, 1913.....	\$1,041 50
Paid superintendent, etc., 1913.....	31 50
Received from sale of space, 1912.....	\$2,070 70
Paid superintendent, etc., 1912.....	36 00
Received from sale of space, 1911.....	\$2,141 40
Paid superintendent, etc., 1911.....	40 50
Received from sale of space, 1910.....	\$878 05
Paid superintendent, labor, etc., 1910.....	52 95

MECHANICS' AND MANUFACTURERS' PRODUCTS.

Name.	Postoffice.	Exhibits.
Armour Fertilizer Co.....	Chicago, Ill.....	Fertilizer.
Brown Carriage Co.....	Cincinnati, O.....	Carriages.
Crow Motor Car Co.....	Elkhart, Ind.....	Motor Trucks.
Cummins Auto Sales Co.....	Columbus, O.....	Automobiles.
German Kali Works.....	New York City, N. Y.....	Fertilizer.
Groves Company.....	Cincinnati, O.....	Fertilizer.
Hamm Co., M.....	Washington C. H., O.....	Fertilizer.
Independent Packers' Fertilizer Co.....	Columbus, O.....	Fertilizer.
Ironton Incandescent Light & Supply Co.....	Ironton, O.....	Incandescent supplies.
Lamneck Co.....	Columbus, O.....	Furnaces, etc.
National Refining Co.....	Columbus, O.....	Oils.
Nitrate Agencies Co.....	328 Bridge St., New York City, N. Y.....	Fertilizers.
Ohio Carriage Co.....	Columbus, O.....	Carriages.
Poste Buggy Co.....	S. Columbus, O.....	Carriages.
Roberts & Co., O. G.....	Columbus, O.....	Automobiles.
Ross Carriage Co.....	Union City, Ind.....	Carriages.
Sells, J. H. & F. A.....	Columbus, O.....	Harness.
Schafer Saddlery Co.....	Decatur, Ind.....	Harness.
Smith Agricultural Chemical Co.....	Columbus, O.....	Fertilizer.
Stadler, R. & F. Co., J. L. & H.....	Cleveland, O.....	Fertilizer.
Switzer, Cliff M.....	Butler, O.....	Furnaces.
Union City Carriage Co.....	Union City, Ind.....	Carriages.
Virginia-Carolina Chemical Co.....	Union Central Bldg., Cincinnati, O.....	Fertilizer.
Watson Co., H. F.....	Erie, Pa.....	Asbestos, etc.
Wing Seed Co.....	Mechanicsburg, O.....	Seeds.

TENTH DEPARTMENT—MERCHANDISE, MUSIC, ETC.

C. H. GANSON, In Charge.

GEO. W. COUCHMAN.....	Superintendent
Received from sale of space, 1913.....	\$551 00
Paid superintendent, etc., 1913.....	31 50
Received from sale of space, 1912.....	\$510 40
Paid superintendent, 1912.....	36 00
Received from sale of space, 1911.....	\$519 20
Paid superintendent, 1911.....	36 00
Received from sale of space, 1910.....	\$194 40
Paid superintendent, janitor, labor, etc., 1910.....	50 50

MERCHANDISE, MUSIC, ETC.

Name of Exhibitor.	Postoffice.	Exhibits.
American Machine Co.....	Columbus, O.....	Talking machines.
Blanton & McKay Co.....	510 Carr St., Cincinnati, O.....	Dairy machinery.
Blickensderfer Mfg. Co.....	Cleveland, O.....	Typewriters.
Columbus Swing Co.....	Columbus, O.....	Porch Swings.
Crofts & Reed Co.....	Chicago, Ill.....	Furniture.
Feeny Mfg. Co.....	Columbus, O.....	Washing Machines.
Howald Co., F. G. & A.....	Columbus, O.....	Furniture.
Hoyt, D. B.....	Columbus, O.....	Vacuum Cleaners.
Kalamazoo Stove Co.....	Kalamazoo, Mich.....	Stoves.
Larkin Co.....	Buffalo, N. Y.....	Furniture, etc.
Lazarus Co., F. & R.....	Columbus, O.....	Women's Apparel.
Monarch Deak Co.....	Columbus, O.....	Deaks.
Quad Stove Co.....	Columbus, O.....	Stoves.
Stevenson, M. L.....	Columbus, O.....	Vacuum Cleaners.
Vacuum Washer Sales Co.....	Columbus, O.....	Washing Machines.
Wallin, A.....	Columbus, O.....	Stoves and Ranges.
Warren Paint Co.....	Columbus, O.....	Paints.
White Lily Mfg. Co.....	Davenport, Iowa.....	Washing Machines.

ROYAL GRAND CHAMPIONSHIPS.

FIRST DEPARTMENT—HORSES.

ROYAL GRAND CHAMPIONS.

All draft stallions and mares regularly entered in other books eligible to compete.

Bell Bros.....	Wooster, Ohio.....	Draft stallion any age or breed.....	Silver Trophy Cup.	North Pole (66424).
C. A. Randolph.....	Fowler, Ind.....	Draft mare any age or breed.....	Silver Trophy Cup.	Beauty.

SECOND DEPARTMENT—CATTLE.

ROYAL GRAND CHAMPIONS.

All bulls and cows regularly entered in other books eligible to compete.

D. Bradfute & Son.....	Xenia, Ohio.....	Beef bull any age or breed.....	Silver Trophy Cup.	Eastern Star.
N. W. Wagner.....	Fremont, Ohio.....	Beef cow any age or breed.....	Silver Trophy Cup.	Mary Abbottsburn 9".
Ed. Lasater.....	Falfurias, Texas.....	Dairy bull any age or breed.....	Silver Trophy Cup.	Noble's Eminent Lad.
W. P. Schanck.....	Avon, N. Y.....	Dairy cow any age or breed.....	Silver Trophy Cup.	Sibbie of Avon.

THIRD DEPARTMENT—SWINE.

ROYAL GRAND CHAMPIONS.

All boars or sows regularly entered in other books eligible to compete.

Ira Jackson.....	Tippecanoe City, Ohio.....	Boar any age or breed.....	Silver Trophy Cup.	Onion's Cherry King (42475).
Chas. E. Keller.....	Newark, O.....	Sow any age or breed.....	Silver Trophy Cup.	Lady Fairbanks (184760).

INDEX TO EXHIBITORS.

HORSES.

AMERICAN BRED DRAFT.

Bainbridge, C. W.	Payne, Ohio
Camp, C. F.	Homerville, Ohio
Chaffin, M. M.	Pataskala, Ohio
Dix, G. A.	Delaware, Ohio
Ferguson, W. W.	Delaware, Ohio
Greasamar, Frank.	Galena, Ohio
Humes & Son, C. W.	Delaware, Ohio
Jones, C. M.	Plain City, Ohio
Long, G. C.	Cardington, Ohio
Longendelpher, Daniel.	Troy, Ohio
Lyons & Ferguson.	Delaware, Ohio
Lyons, M. E.	Delaware, Ohio
McGonigle, R. D.	Ashley, Ohio
Pendelton, Ernest.	Delaware, Ohio
Randolph, C. A.	Fowler, Ind
Rittenhouse, J. R.	Mahomet, Ill
Robert & Rothrock.	Monticello, Ind
Stalter, J. A.	Pataskala, Ohio
Stanton, Wm.	Ashley, Ohio
White Star Stock Farm.	Sunbury, Ohio

BELGIAN.

Bell Bros.	Wooster, Ohio
Crawford, Geo. W.	Newark, Ohio
Howisher & Son, Wm.	Sidney, Ohio
McClain & Son, Lonzo.	Lima, Ohio
Price, C. N.	Radner, Ohio
Wilson, Morrow B.	London, Ohio

FRENCH AND GERMAN COACH.

Baker, Alonzo.	Marengo, Ohio
Brown, F. G.	Cardington, Ohio
Chaffin, M. M.	Pataskala, Ohio
Crawford, Geo. W.	Newark, Ohio
Cunard, Lee S.	Fulton, Ohio
Hershey, Wm.	
Howisher & Son, Wm.	Sidney, Ohio
McCurdy, W. S.	Ashley, Ohio
White Star Stock Farm.	Sunbury, Ohio

GRADE DRAFT.

Burwell, F. A.	Sunbury, Ohio
Coyner, C. C.	Delaware, Ohio
Lyons & Ferguson.	Delaware, Ohio
Roberts & Rothrock.	Monticello, Ind
Smith & Houston.	London, Ohio
Stanton, Wm.	Ashley, Ohio

HARNESS CLASS.

Bassell, J. Y.	Columbus, Ohio
Beyerly, Anna S.	Columbus, Ohio
Brimbee, Wm.	Marengo, Ohio
Britton, Jno. W.	Columbus, Ohio
Long, A. C.	Delaware, Ohio
Low Ridge Farm	Mentor, Ohio
Malay, Mrs. Geo.	Columbus, Ohio
Masters, J. W.	Edison, Ohio
Mitchell, C. P.	Columbus, Ohio
McClain & Son, Lonzo.	Lima, Ohio
McCurdy, W. G.	Ashley, Ohio
Price, Jas. W.	Plain City, Ohio
Parsell, Ralph.	Reynoldsburg, Ohio
Parsell, B. F.	Reynoldsburg, Ohio
Price, C. W.	Radnor, Ohio
Robinson, W. S.	Mt. Sterling, Ohio
Smith, C. G.	Reynoldsburg, Ohio
Sprague, D. A.	S. Charleston, Ohio
Tregg, Chas.	Delaware, Ohio
Baker, Alonzo.	Marengo, Ohio
Mitchell, C. P.	Columbus, Ohio
Smith, C. G.	Reynoldsburg, Ohio
Randolph, C. A.	Fowler, Ind
Rittenhouse, Jno. R.	Mahomet, Ill
White Star Stock Farm.	Sunbury, Ohio

PERCHERONS.

Bainbridge, C. W.	Payne, Ohio
Bell Bros.	Wooster, Ohio
Cowgill, H. V.	Delaware, Ohio
Crawford, Geo. W.	Newark, Ohio
Dix, G. A.	Delaware, Ohio
Ferguson, W. W.	Delaware, Ohio
Fullerton & Gugel.	Milford Center, Ohio
Gordon, T. F. and T. E.	Mt. Gilead, Ohio
Kunze, Chas.	Delaware, Ohio
Lyons, M. E.	Delaware, Ohio
McClain & Son, Lonzo.	Lima, Ohio
Pollock, O. H.	Delaware, Ohio
Price, C. N.	Radnor, Ohio
Randolph, C. A.	Fowler, Ind
Ringer, Geo. S.	Rockfield, Ind
Roberts, M. E.	S. Charleston, Ohio
Robinson, B. L.	Unionville, Ohio
Robinson, G. A.	Milford Center, Ohio
Sarbe & Co., H. M.	Urbana, Ohio
Smith & Houston.	London, Ohio
Turner Bros.	Mt. Gilead, Ohio
White Star Stock Farm.	Sunbury, Ohio

ROADSTERS—NON-STANDARD.

Beyerly, Anna S.	Sta. B, Columbus, Ohio
Brimbee, Wm.	Marengo, Ohio
Cunard, Lee S.	Fulton, Ohio
Dent, J. L.	Columbus, Ohio
Gordon, T. F. and T. E.	Mt. Gilead, Ohio
Long, A. C.	Delaware, Ohio
Malay, Mrs. Geo.	Columbus, Ohio
Masters, J. W.	Edison, Ohio
Mitchell, C. P.	Columbus, Ohio

ROADSTERS—NON-STANDARD—Concluded.

McCurdy, W. G.	Ashley, Ohio
Parsell, B. F.	Reynoldsburg, Ohio
Parsell, Ralph	Reynoldsburg, Ohio
Price, Jas. W.	Plain City, Ohio
Robinson, W. S.	Mt. Sterling, Ohio
Smith, C. G.	Reynoldsburg, Ohio
Smith & Houston	London, Ohio
Sprague, D. A.	S. Charleston, Ohio

ROADSTERS—STANDARD BRED.

Beyerly, Anna S.	Sta. B, Columbus, Ohio
Brimbee, Wm.	Marengo, Ohio
Conrad, Lee S.	Fulton, Ohio
McCurdy, W. G.	Ashley, Ohio
Masters, J. W.	Edison, Ohio
Price, C. W.	Radner, Ohio
Price, Jas. W.	Plain City, Ohio
Smith, C. G.	Reynoldsburg, Ohio
Smith, Seymour	Pataskala, Ohio
Sprague, D. A.	S. Charleston, Ohio

SADDLE HORSES.

Bassell, J. Y.	Columbus, Ohio
Corkwell, F. E.	Newark, Ohio
Long, A. C.	Delaware, Ohio
Mitchell, C. P.	Columbus, Ohio
Robinson, W. S.	Mt. Sterling, Ohio

THREE GAITED HORSES.

Brown, F. J.	Athens, Ohio
Long, A. C.	Delaware, Ohio
Low Ridge Farm	Mentor, Ohio
Mitchell, C. P.	Columbus, Ohio
Robinson, W. S.	Mt. Sterling, Ohio

COMBINED SADDLE AND HARNESS HORSES.

Bassell, J. Y.	Columbus, Ohio
Corkwell, F. E.	Newark, Ohio
Long, A. C.	Delaware, Ohio
Low Ridge Farm	Mentor, Ohio
Mitchell, C. P.	Columbus, Ohio
Robinson, W. S.	Mt. Sterling, Ohio

UTILITY CLASS.

Price, C. N.	Radnor, Ohio
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PONIES.

OTHER THAN SHETLAND.

Bunn, C. E.	Peoria, Ill
Hunter, C. C.	Mt. Vernon, Ohio

SHETLAND.

Black, Logan W.	Jacksonville, Ill
Bunn, C. E.	Peoria, Ill
Kahler & Justice	Plain City, Ohio
McCurdy, W. G.	Ashley, Ohio

MULES.

Bliss, Jerry P.....Columbus, Ohio
 Porter Bros.....Zanesville, Ohio

CATTLE.**ABERDEEN ANGUS.**

Bradfute & Son, D.....Xenia, Ohio
 Turnbull, F. B.....Cedarville, Ohio
 Wilson Bros.....Muncie, Ind

AYRSHIRES.

Converse & Co., J. F.....Woodville, N. Y
 Schanck, W. P.....Avon, N. Y
 Stalter, J. A.....Pataskala, Ohio

BROWN SWISS.

Chase, Mrs. D. L.....Marengo, Ohio
 Hull Bros.....Painesville, Ohio
 Wampler, A. F.....Dayton, Ohio

FAT CATTLE.

Bradfute & Son, D.....Xenia, Ohio
 Huffman, Wm.....Washington C. H., Ohio
 Luce & Moxley.....Shelbyville, Ky
 Smith & Wilson.....Decatur, Ind
 Van Natta, J. H. and Jno. W.....Lafayette, Ind
 Wilson Bros.....Muncie, Ind

GALLOWAYS.

Frantz, Jas. & Son.....Bluffton, Ohio

GUERNSEYS.

Allen, H. M.....Troy, Ohio
 Baker, Elber H.....Gates Mills, Ohio
 Bell & Son, W. Henry.....Scotts Sta., Ky
 Brownrigg, L. M.....Worthington, Ohio
 Dean Valley Stock Farm.....Linden Heights, Ohio
 Oak Ridge Farm.....Oak Ridge, Va
 Owen, F. A.....Delaware, Ohio

HEREFORDS.

Curtice, W. H.....Eminence, Ky
 Fernow, J. B.....Leesburg, Ohio
 Luce & Moxley.....Shelbyville, Ky
 Smith & Wilson.....Decatur, Ind
 Spring Lea Stock Farm.....Yellow Springs, Ohio
 Van Natta, J. H. and Jno. A.....Lafayette, Ind

HOLSTEINS.

Bottema, C. M.	Indianapolis, Ind
Derrer Bros.	Camp Chase, Ohio
Paxton, J. G. & Son	Houston, Pa
Watson, J. A. and W. W.	Youngstown, Ohio
White, Frank & Son	Woodstock, Ill
Zehring, E. L. and O. O.	Germantown, Ohio

JERSEYS.

Boyd, John F.	Rushville, Ind
Elmendorf Farm	Lexington, Ky
Folek, C. C. & Son	Springfield, Ohio
Holden, L. E.	Mentor, Ohio
Hoover, Wm.	Westerville, Ohio
Lasater, Ed. C.	Falfurrias, Texas
Logan, John A.	Youngstown, Ohio

POLLED DURHAMS.

Edwards, Frank R.	Tiffin, Ohio
Miller, J. H.	Peru, Ind
Rose, W. W. & Sons	Rossville, Ind
Tossey, Wm. & Son	Marysville, Ohio

RED POLLS.

Hartline, Frank & Sons	Strasburg, Ohio
Ineicher, Geo. & Sons	Geneva, Ind
Paxton, J. G. & Son	Houston, Pa

SHORTHORNS.

Anoka Farm	Waukesha, Wis
Carpenter & Ross	Mansfield, Ohio
Edwards, Frank	Tiffin, Ohio
Lespedeza Farm	Hickory Valley, Tenn
Rosenberger, W. C.	Tiffin, Ohio
Wagner, N. W.	Fremont, Ohio

SWINE.

BERKSHIRES.

Baker, E. J.	Lexington, Ky
Elmendorf Farm	Thornton, Ind
Fisher, A. E.	Orient, Ohio
Hartman & Plumb	N. Fairfield, Ohio
Kite, F. E.	St. Paris, Ohio
Townsend Farms	New London, Ohio

CHESTER WHITES.

Adams Bros	Litchfield, Mich
Brendel, J. W.	Zionsville, Ind
Fry & Lyons	Ansonia, Ohio
Hardin, E. P. and J. J.	Lima, Ohio
Heskett Bros	Fulton, Ohio
Wenger, Chas.	Clayton, Ohio

DUROC JERSEYS.

Ira Jackson & Sprague.....	Tippecanoe City, Ohio
Klever, O. A.....	Bloomington, Ohio
McKee Bros.....	Versailles, Ky
Mahan Bros.....	Osborn, Ohio
Stemen, F. C. & Sons.....	Middlepoint, Ohio
Stuckey, Chas. J. & Son.....	Mechanicsburg, Ohio
Watt & Foust.....	Cedarville and Xenia, Ohio

HAMPSHIRE.

Alt & Gilliland.....	Rockford, Ohio
Castor, Dan W.....	Belleville, Ohio
Essig, Sylvester.....	Tipton, Ind
Harris & Dildine.....	Richwood, Ohio
Winchet, Jno. W.....	Dayton, Ohio

MULEFOOTS.

Custard Bros.....	Pleasantville, Ohio
Glenview Farm.....	Wilmington, Ohio
Long Bros.....	Alvada, Ohio

POLAND CHINAS.

Brown, M. C. & Sons.....	Martinville, Ohio
Conrad & Lampka.....	Troy, Ohio
Grieve, A. C. & Sons.....	Xenia, Ohio
Harmison, J. S.....	Woodstock, Ohio
Keller, Chas. E.....	Newark, Ohio
Clever, Karl.....	Bloomington, Ohio
Porter, C. W.....	East Millsboro, Ohio
Shepard & Osburn.....	Lockbourne, Ohio
Townsley, J. W.....	Washington C. H., Ohio

TAMWORTHS.

Adams Bros.....	Litchfield, Mich
Elmendorf Farm.....	Lexington, Ky
Oak Ridge Farm.....	Oak Ridge, Va

YORKSHIRES.

Fisher, W. H.....	Columbus, Ohio
Illinois Printing Co.....	Danville, Ill
Kite, W. E.....	St. Paris, Ohio

SHEEP.

CHEVIOTS.

Grieve, A. C. & Son.....	Xenia, Ohio
Grieve, Raymond D.....	Xenia, Ohio
Interlaken School Farm.....	Rolling Prairie, Ind
Postle, R. & W.....	Camp Chase, Ohio

COTSWALD.

Anoka Farms.....	Waukesha, Wis
Hintz, Peter W.....	Clyde, Ohio

DORSET.

Cherry, H. H.	Xenia, Ohio
Filimore Farms	Bennington, Vt
Henderson, J. B.	Hickory, Ohio
Interlaken School Farm	Rolling Prairie, Ind

FAT SHEEP.

Postle, F. D.	Camp Chase, Ohio
Watt, R. C. & Son	Cedarville, Ohio

FRENCH MERINOS—RAMBOUILLET.

Herd, J. B.	East Liberty, Ohio
Orth & Mathews	McGuffey, Ohio
Scott, C. H.	Arlington, Ohio
Shaw, J. M. & Sons	Edison, Ohio
Shaw, L. W.	Pottersburg, Ohio
Webb, Jno. E.	Southport, Ind

HAMPSHIRE DOWNS.

Interlaken School Farms	Rolling Prairie, Ind
Mitchell, C. L.	Lucas, Ohio
Patridge, C. O.	Perry, N. Y
Walnut Hall Farms	Donerail, Ky

LINCOLNS.

Bickett, J. R.	Xenia, Ohio
Fielder, A. C.	DeGraff, Ohio

MERINOS—CLASS A.

Blamer, S. & Son	Johnstown, Ohio
Cleaver, E. E.	W. Brownsville, Pa
Cleaver, Ira A.	W. Brownsville, Pa
Dean, A. H. & Son	W. Mansfield, Ohio
Deeds, J. J. & Son	Pataskala, Ohio
Freed & Stuart	Lancaster, Ohio
Krantz, J. & Son	Canal Dover, Ohio
Owen, Samuel & Son	Seville, Ohio
Staley, W. M.	Marysville, Ohio
Walker, J. F.	Gambier, Ohio
Williamson, R. D. & Son	Xenia, Ohio

MERINOS—CLASS B.

Blamer & Son	Johnstown, Ohio
Cleaver, Ira A.	W. Brownsville, Pa
Cook, W. N. & Son	New London, Ohio
Dean, A. H. & Son	W. Mansfield, Ohio
Deeds, J. J. & Son	Pataskala, Ohio
Freed & Stuart	Lancaster, Ohio
Krantz, J. & Son	Canal Dover, Ohio
Liles, J. I.	Collins, Ohio
Owen, Samuel & Son	Seville, Ohio
Staley, W. M.	Marysville, Ohio
Walker, J. F.	Gambier, Ohio
Williamson, R. D. & Son	Xenia, Ohio

MERINOS—CLASS C.

Blamer, S. & Son	Johnstown, Ohio
Cook, W. N. & Son	New London, Ohio
Deeds, J. J. & Son	Pataskala, Ohio
Freed & Stuart	Lancaster, Ohio
Harris, W. & Son	Edison, Ohio
Krantz, J. & Son	Canal Dover, Ohio
Liles, J. I.	Collins, Ohio
Owen, Samuel & Son	Seville, Ohio
Walker, J. F.	Gambier, Ohio
Williamson, R. D. & Son	Xenia, Ohio
Wilson, J. M.	Fredericktown, Ohio

OHIO BRED SHROPSHIRE.

Chaffee, H. W.	Bricksville, Ohio
Chambers, Ers & Son	Mansfield, Ohio
Palmer, L. B.	Pataskala, Ohio
Postle, R. & W.	Camp Chase, Ohio
Postle, Walter	Camp Chase, Ohio
Ross, L. H.	Bucyrus, Ohio
Taylor, R. E.	Bellefontaine, Ohio
Woodward, F. E.	Forest, Ohio
Wurtz, Pearl	Attica, Ohio

OXFORD DOWNS.

Heskett, Geo. W.	Fulton, Ohio
Williamson, J. C.	Xenia, Ohio

SHROPSHIRE.

Andrews, Jesse C.	West Point, Ind
Anoka Farms	Waukesha, Wis
Chambers, Ers & Son	Mansfield, Ohio
Cloyd, R.	Stockwell, Ind
Palmer, L. B.	Pataskala, Ohio
Pattridge, C. O.	Perry, N. Y
Taylor, R. E.	Bellefontaine, Ohio
Woodward, F. E.	Forest, Ohio

SOUTH DOWNS.

Mitchell, C. L.	Lucas, Ohio
Palmer, R. W.	Pataskala, Ohio
Pattridge, C. O.	Perry, N. Y
Postle, F. D.	Camp Chase, Ohio
Watt, R. C. & Son	Cedarville, Ohio

WOOL EXHIBIT.

Bickett, J. R.	Xenia, Ohio
Cleaver, Ira A.	W. Brownsville, Pa
Freed & Stuart	Lancaster, Ohio
Henderson, J. B.	Hickory, Ohio
Highslip, Jno. F.	Kenton, Ohio
Palmer, L. B.	Pataskala, Ohio
Palmer, R. W.	Pataskala, Ohio
Postle, F. D.	Camp Chase, Ohio
Postle, R. & W.	Camp Chase, Ohio
Postle, Walter D.	Camp Chase, Ohio
Shaw, L. W.	Pottersburg, Ohio
Walker, J. F.	Gambier, Ohio

POULTRY.

Acker, John B.	Urbana, Ohio
Alexander, J. F.	Columbus, Ohio
Austin, C. B.	Delaware, Ohio
Baker, Leonard	Johnstown, Ohio
Baker, L. E.	Mechanicsburg, Ohio
Baker, Harvey	Johnstown, Ohio
Baughman, Truman	Johnstown, Ohio
Barnes, P. N.	Troy, Ohio
Beatty, Mrs. Carl C.	Van Wert, Ohio
Berry Carlton	1473 Summit St., Columbus, Ohio
Bensch Bros.	Rocky Ridge, Ohio
Billman, Dr. G. G.	Sullivan, Ind
Boone, Dr. Geo. M.	Coshocton, Ohio
Bohlander, John J.	Columbus, Ohio
Bowden, Sherman	Mansfield, Ohio
Boyer, Chas.	Urbana, Ohio
Brown, O. K.	Ashland, Ohio
Budd, Mrs. S. T.	Clintonville, Ohio
Cary, L. G.	Trimble, Ohio
Cary, Will P.	Urbana, Ohio
Chamberlain, Enoch	Franklin, Ohio
Champion, Wm.	Mt. Vernon, Ohio
Copeland, J. H.	Athens, Ohio
Coverdale, C.	550 Carpenter St., Columbus, Ohio
Crumrine, Homer	Urbana, Ohio
Davidson, Edw.	Carey, Ohio
Devor Bros.	Ashland, Ohio
Dressel, C. M.	Convoy, Ohio
Drummond, W. A.	Columbus, Ohio
East Side Poultry Yards	413 Stoddard Ave., Columbus, Ohio
Eddy, E. E.	Trimble, Ohio
Frank, Julius & Son	Akron, Ohio
Godfrey, Chas. M.	Ashland, Ohio
Grady, Dr. O. G.	Orrville, Ohio
Green, Isaac	Pemberton, Ohio
Greer, Mrs. W. H.	Columbus, Ohio
Hanby, Mrs. Donia	Mechanicsburg, Ohio
Hay, Jonathan	Ashville, Ohio
Helsel, C. L.	Sta. C, Columbus, Ohio
Hoke, S. G. & Son	Spring Grove, Pa
Jackson, C. C.	Centerburg, Ohio
Johnson, H. W.	Lima, Ohio
Jones, Dr. D. Parson	Jackson, Ohio
Joyce, M. A.	Columbus, Ohio
Keen, Jas. S. & Son	Clintonville, Ohio
Kendrick, W. B.	Urbana, Ohio
Leetz, J. W.	27 Burton Ave., Dayton, Ohio
Leitmayer, C. C.	Basil, Ohio
Liegler, D. L.	Delaware, Ohio
Light, Mrs. S. R.	McComb, Ohio
Limes, W. S.	Linden Heights, Ohio
McCabe, Syl. Thos.	Columbus, Ohio
McClave, Chas.	New London, Ohio
McGrew, O. N.	Troy, Ohio
McNamara, H. M.	London, Ohio
Marquis, W. E.	Trimble, Ohio
Marriott, Tom	New London, Ohio
Mebs, Fred J.	Columbus, Ohio
Metzler, J. L.	Findlay, Ohio
Michener & Seas	Orrville, Ohio
Miles, Oscar	602 Hartman Bldg., Columbus, Ohio
Miller, H. C.	Akron, Ohio
Moore, Geo. S.	Clintonville, Ohio
Myers, Milo L.	Marysville, Ohio

POULTRY—Concluded.

Myers, M. M.	Marysville, Ohio
Norris, G. B.	Columbus, Ohio
Osborne Poultry Farm	Mansfield, Ohio
Otter Creek Poultry Farm	Toledo, Ohio
Painter, W. Sewell	Bellefontaine, Ohio
Perry, Louis H.	Clay, N. Y.
Powers, R. B.	Ashley, Ohio
Racer, T. M. & Son	Urbana, Ohio
Reeves, W. R.	Trimble, Ohio
Rice, A. J.	Crooksville, Ohio
Ramey, A. M.	Trimble, Ohio
Rice, C. S.	Spencer, Ohio
Roloson, E. P.	Delaware, Ohio
Rose, Hugh A.	Welland, Ontario
Searborough, J. M.	Hillsboro, Ohio
Scholl, W. J.	Bremen, Ohio
Shields, M. W.	Columbus, Ohio
Simons, Wm.	Glouster, Ohio
Snider, Dr. Geo.	Cardington, Ohio
Stephenson, J. L.	Jacksonville, Ohio
State School for Deaf	Columbus, Ohio
Stewart, Geo. F.	Coshocton, Ohio
Stewart, Dr. F. E.	Orrville, Ohio
Tracht, Adron A.	165 Mithoff, Columbus, Ohio
Tyler, Mrs. Geo. E.	Linden Heights, Ohio
Walfarth, Wm.	Mansfield, Ohio
Walker, Lake L.	Killbuck, Ohio
Watts, W. R.	Columbus, Ohio
Wenbinger, S. Wm.	Columbus, Ohio
Whipple, Geo. E.	Athens, Ohio
Wilking, Geo. H.	Zanesville, Ohio
Wilson, H. T.	Mansfield, Ohio
Wright, Geo. K.	Ashville, Ohio
Wright, O. C.	Canal Winchester, Ohio
Yant, Jno. W.	Canton, Ohio
Young, H. E.	Bremen, Ohio

FARM PRODUCTS.

Bailey, Ralph H.	Yellow Springs, Ohio
Bailey, W. W.	Yellow Springs, Ohio
Baumiller, J. M. & Son	Nutwood, Ohio
Beigle, Frank	Thornville, Ohio
Bell, Hope A.	Columbus, Ohio
Brenneman, Mrs. E. O.	Camp Chase, Ohio
Bookwalter, Harry	Hallsville, Ohio
Boyd, D. S.	120 W. Lane Ave., Columbus, Ohio
Bruce, F. B.	Worthington, Ohio
Burkholder, H.	Clyde, Ohio
Carson, J. M. & Son	East Monroec, Ohio
Coleman, Joe	Lexington, Ohio
Columbus Market Gardeners' Association	Bexley Sta., Ohio
Counter, C. W.	W. Toledo, Ohio
Craig, Crystal	Groveport, Ohio
Craig, Hilar	Groveport, Ohio
Cox, E. G.	Proctorville, Ohio
Cox, U. T.	Proctorville, Ohio
Dim, Geo. Wm.	Sabina, Ohio
Dim, Robt.	Sabina, Ohio
Dupre, Elizabeth	523 W. Third Ave., Columbus, Ohio
Eggert, Mrs. A. E.	1305 Forsythe Ave., Columbus, Ohio
Sheffield Farm	Glendale, Ohio

FARM PRODUCTS—Concluded.

Ketner Farms.....	Baltimore, Ohio
Farnsworth Co., The W. W.....	Waterville, Ohio
Ferguson, W. W.....	Delaware, Ohio
Forbes, Mrs. W. A.....	246 Marshall Ave., Columbus, Ohio
Freed, C. L.....	Lancaster, Ohio
Gill, R. A.....	Port Clinton, Ohio
Gill & Johnson.....	Port Clinton, Ohio
Gill & Miller.....	Port Clinton, Ohio
Goodrich, Jesse.....	Powell, Ohio
Grossman, Mrs. Ethel M.....	Grove City, Ohio
Heiser, W. N.....	Powell, Ohio
Hite, H. Cecil.....	Thurston, Ohio
Hoffman, J. C.....	Lancaster, Ohio
Housel, Mrs. L. J.....	1305 Forsythe Ave., Columbus, Ohio
Hutchinson, Mabel.....	Clyde, Ohio
Hutchinson, Fred.....	Clyde, Ohio
Husted, Elmer.....	Hustead, Ohio
Indianola Florists.....	Columbus, Ohio
Johnson, Monford.....	Urbana, Ohio
Johnson, Mrs. T. S.....	Port Clinton, Ohio
Keckley, I. B.....	Marysville, Ohio
Keckley, J. L.....	Marysville, Ohio
Kennedy, Mrs. T. H.....	373 Marshall Ave., Columbus, Ohio
Larkin, Paul P.....	S. Charleston, Ohio
Lawrence, Jay.....	Coshocton, Ohio
Lee, Geo.....	Canal Winchester, Ohio
Lee, Mrs. Geo.....	Canal Winchester, Ohio
Leigh, Miss Elizabeth.....	Groveport, Ohio
Livingston Seed Co.....	Columbus, Ohio
Miller, Wm.....	Port Clinton, Ohio
Maag, A. L.....	Hallsville, Ohio
McConnell, C. M.....	Woodstock, Ohio
Ortman, W. H.....	Hallsville, Ohio
Pearce, Albert.....	Akron, Ohio
Powell, A. H. & Son.....	Newark, Ohio
Powell, T. A.....	Newark, Ohio
Purks, J. F.....	Newark, Ohio
Randolph, C. S.....	New Lexington, Ohio
Rapp, J. L.....	Canal Winchester, Ohio
Rice, C. S.....	Spencer, Ohio
Ruff, Mrs. T. G.....	Lancaster, Ohio
Sampson, Mrs. B. F.....	1103 Pennel Ave., Columbus, Ohio
Scott, G. W.....	Carroll, Ohio
Shellhammer, W. C.....	Greenspring, Ohio
Sherwood, C. A.....	Hilliards, Ohio
Smith, Miss Rachel M.....	Trinway, Ohio
Snedeker, Harvey.....	Coshocton, Ohio
Stephens, S. F.....	Columbus, Ohio
Stewart, H. E.....	Thornville, Ohio
Swanson, Geo. L.....	Loveland, Ohio
Watters, Mary E.....	Lancaster, Ohio
West Jefferson Creamery Co.....	Columbus, Ohio
Wheeler Homestead, The.....	Kanona, N. Y
Whipps, F. M.....	Peoria, Ohio
Whipps, W. D.....	Marion, Ohio
Wildman, G. W.....	New Carlisle, Ohio

WOMAN'S WORK AND FINE ARTS DEPARTMENT.

Adams, Mrs. Dora	London, Ohio
Abernethy, Mrs. J. M.	111 W. 10th Ave., Columbus, Ohio
Akerly, Low	Zanesville, Ohio
Alban, Gwinnie	962 E. Long St., Columbus, Ohio
Arbuckle, Mabel	Shepard, Ohio
Armstrong, Mrs. Dela	Yellow Springs, Ohio
Armstrong, Mrs. C. S.	37 W. 3rd Ave., Columbus, Ohio
Babcock, Mrs. Chas. S.	1257 Pennsylvania Ave., Columbus, Ohio
Baker, Donald	Westerville, Ohio
Beebe, Mrs. M. R.	Delaware, Ohio
Bell, Mrs. O. S.	51 W. Lane Ave., Columbus, Ohio
Beigle, Frank	Thornville, Ohio
Beck, Mrs. F. L.	728 Kerr St., Columbus, Ohio
Black, Mrs. James	1137 Fair Ave., Columbus, Ohio
Blesch, Miss Clara	198 S. 3rd St., Columbus, Ohio
Binkley, Mrs. Clara	445 W. 2nd Ave., Columbus, Ohio
Bowman, Miss Ruth	46 W. 10th Ave., Columbus, Ohio
Boyd, Fannie E.	120 W. Lane Ave., Columbus, Ohio
Banning, Mrs. Wm.	Mt. Vernon, Ohio
Beeman, Mrs. Burley	Mt. Vernon, Ohio
Bigelow, Mrs. Grace	Plain City, Ohio
Bowman, Mrs. V. A.	235 Hamilton Ave., Columbus, Ohio
Bowers, Paul	381 W. 3rd Ave., Columbus, Ohio
Boe, Warren	2327 Summit St., Columbus, Ohio
Boror, Mrs. H. W.	29 W. 5th Ave., Columbus, Ohio
Bookwalter, Martha	Hallsville, Ohio
Blue, Mrs. J. M.	167 W. 9th Ave., Columbus, Ohio
Blue, Bernice	167 W. 9th Ave., Columbus, Ohio
Brownell, Mrs. F. M.	1626 Pembroke, Columbus, Ohio
Bright, Miss Marian M.	74 N. Garfield Ave., Columbus, Ohio
Brubaker, Mrs. V. E.	Clintonville, Ohio
Brittian, Mrs. G. E.	900 Manhattan, Dayton, Ohio
Brobeck, Florence	58 N. Oakland Ave., Columbus, Ohio
Brown, Mrs. Thos. W.	Circleville, Ohio
Bradberry, Miss H. B.	1147 E. Long St., Columbus, Ohio
Buck, Mrs. E.	219 Arlington, Lockland, Ohio
Byerly, Grace	Chillicothe, Ohio
Carson, Miss Nellie E.	Delaware, Ohio
Cameron, Mrs. Florence	Westerville, Ohio
Carter, Mrs. R. P.	157 Ogden Ave., Columbus, Ohio
Cheney, Anne	357 W. 63rd St., Chicago, Ill
Cochran, Halford	316 E. Maynard, Columbus, Ohio
Corbin, Mrs. Louise	213 W. Center Ave., Columbus, Ohio
Cook, Mrs. C. S.	Marion, Ohio
Covault, Mrs. L. C.	Mechanicsburg, Ohio
Conlon, Mrs. James	581 Starr Ave., Columbus, Ohio
Conlon, Geo. O.	581 Starr Ave., Columbus, Ohio
Covault, Amelia D.	Mechanicsburg, Ohio
Conrad, Adelaine	Oakland Ave., Columbus, Ohio
Cowser, Mrs. H. L.	383 12th Ave., Columbus, Ohio
Coler, Bertha	207 Hartman Bldg., Columbus, Ohio
Coler, Lillian	207 Hartman Bldg., Columbus, Ohio
Corbin, Ruth	425 W. 2nd Ave., Columbus, Ohio
Covault, Mrs. W. H.	Mechanicsburg, Ohio
Couse, Josephine	Newark Valley, N. Y.
Coleman, Mrs. Chas.	Coshocton, Ohio
Coles, Virginia Therman	513 E. Rich St., Columbus, Ohio
Cook, Mrs. L. H.	Westerville, Ohio
Cooper, Margaret	181 Chittenden Ave., Columbus, Ohio
Cramer, Miss Geneva	315 Parkwood Ave., Columbus, Ohio
Crane, Hazel	641 Dennison Ave., Columbus, Ohio
Crippen, Mrs. C. L.	27 E. 7th Ave., Columbus, Ohio
Davis, Elizabeth	6025 Jefferson Ave., Chicago, Ill
Davies, Helen	173 S. 3rd St., Ironton, Ohio

WOMAN'S WORK AND FINE ARTS DEPARTMENT—Continued.

Debra, Mrs. Jos.	50 E. 11th Ave.,	Columbus, Ohio
DeVore, Mrs. J. C.	80 E. 11th Ave.,	Columbus, Ohio
Dixon, Miss Alice		Craton, Ohio
Dunlap, M. F.		West Grove, Pa
Earnest, Meta	1059 E. Long St.,	Columbus, Ohio
Ebright, Miss Dora	40 W. Frambes Ave.,	Columbus, Ohio
Eddy, Majorie	1446 Eastwood Ave.,	Columbus, Ohio
Eggert, Mrs. A. C.	1304 Forsythe Ave.,	Columbus, Ohio
Elliott, Mrs. Geo.	185 E. Town St.,	Columbus, Ohio
Emerson, Sybil	1832 Summit St.,	Columbus, Ohio
Emminger, Hannah C.	880 E. Broad St.,	Columbus, Ohio
Engelhard, Amelia	40 W. 4th Ave.,	Columbus, Ohio
Evans, Elsie	77 E. 5th Ave.,	Columbus, Ohio
Fauley, Mrs. A. C.	1427 Eastwood Ave.,	Columbus, Ohio
Fauley, A. C.	1427 Eastwood Ave.,	Columbus, Ohio
Fearn, Fannie		Groveport, Ohio
Flook, Miss Oteo	174 W. Main St.,	Columbus, Ohio
Florence, Mrs. N. W.	594 Franklin Ave.,	Columbus, Ohio
Fogle, Mrs. Clara		Mt. Gilead, Ohio
Forbes, Mrs. W. A.	246 Marshall Ave.,	Columbus, Ohio
Foster, Helen	647 Oakwood Ave.,	Columbus, Ohio
Foster, Mrs. W. R.	647 Oakwood Ave.,	Columbus, Ohio
Foster, Mrs. R. M.		Waverly, Ohio
Frasier, Mrs. Frank F.	53 Euclid Ave.,	Columbus, Ohio
Frenk, Geo. E.		Circleville, Ohio
Fricke, Mrs. H. F.	446 E. 17th Ave.,	Columbus, Ohio
Gearhart, Mrs. Emma A.		Van Wert, Ohio
Gale, Chas. F.	91 N. 20th St.,	Columbus, Ohio
Gentsch, Mrs. H. R.	1225 Farwell Ave.,	Chicago, Ill
George, Miss Flora B.	603 E. Town St.,	Columbus, Ohio
George, Mrs. Gertrude	393 Taylor Ave.,	Columbus, Ohio
Gillard, Mrs. C. V.	80 E. 17th Ave.,	Columbus, Ohio
Godard, Miss Mary	78 Capitol E.,	Columbus, Ohio
Goldsmith, Mrs. Dora		London, Ohio
Greiner, Lillie		Delaware, Ohio
Greiner, Mrs. Ed.		Delaware, Ohio
Grossma, Mrs. Ethel M.		Grove City, Ohio
Harps, Mrs. Mary	1315 N. Beville Ave.,	Indianapolis, Ind
Hall, Miss Nannie	838 W. High.,	Lexington, Ky
Hain, Miss Mabel	1749 N. 4th St.,	Columbus, Ohio
Hain, Mrs. R. P.	1749 N. 4th St.,	Columbus, Ohio
Hanning, Miss Ivah	51 Chittenden Ave.,	Columbus, Ohio
Hardrick, J. W.	330 Prospect St.,	Indianapolis, Ind
Hart, Mrs. Mae	411 E. 14th Ave.,	Columbus, Ohio
Harrington, Mrs. Z. S.		Coshocton, Ohio
Hay, Mrs. Warner		Coshocton, Ohio
Heller, John	1230 Neil Ave.,	Columbus, Ohio
Henry, Mrs. Alex.	14 Sells Court,	Columbus, Ohio
Hershner, A. C.		Columbus, Ohio
Higgins, Mrs. Chas.	1257 E. Long St.,	Columbus, Ohio
Hinger, Mrs. E. C.		Mt. Vernon, Ohio
Hobbs, Mrs.		Mt. Vernon, Ohio
Hodgison, Mrs. Chas.	1620 Harvard Ave.,	Columbus, Ohio
Holton, Miss Winifred E.	611 N. Wittenberg,	Springfield, Ohio
Holton, Mrs. W. S.	611 N. Wittenberg,	Springfield, Ohio
Hobill, Mrs. Mary V.		Circleville, Ohio
Housel, Mrs. L. J.	1305 Forsythe Ave.,	Columbus, Ohio
Howard, Georgia	1024 E. 19th St.,	Indianapolis, Ind
Howard, Cornelia I.	374 Abbot Ave.,	Columbus, Ohio
Huffman, Wm.	42 W. 3rd Ave.,	Columbus, Ohio
Hughes, Harry	841 Neil Ave.,	Columbus, Ohio
Hunter, Mrs. Chas. N.		Springfield, Ohio
Himmeger, Mrs. W. A.	847 N. Park St.,	Columbus, Ohio
Innis, Mrs. Louis	1053 Madison Ave.,	Columbus, Ohio
Iseli, Maria	910 St. Clair Ave.,	Columbus, Ohio
Jackson, Tom M.		Amlin, Ohio

WOMAN'S WORK AND FINE ARTS DEPARTMENT—Continued.

Jennings, Mrs. F. W.	61 W. 11th Ave., Columbus, Ohio
Jennings, Mrs. M. W.	4232 Delaney St., Cincinnati, Ohio
Johnson, Mrs. Ettie	Eaton, Ohio
Jones, Victor W.	1068 Hamlet St., Columbus, Ohio
Jones, Lenna	Westerville, Ohio
Judd, Mrs. E. W.	Mt. Vernon, Ohio
Karshner, Mrs. M. A.	328 W. 4th Ave., Columbus, Ohio
Kennard, Mrs. R. A.	280 S. 18th St., Columbus, Ohio
Kibbe, Mrs. F. W.	1403 Huron St., Toledo, Ohio
Kientz, Mrs. Chas. O.	Columbus, Ohio
Kight, Mrs. W. B.	603 E. Town St., Columbus, Ohio
Killets, Mrs. Fred M.	2492 Findlay Ave., Columbus, Ohio
Kirkpatrick, Harriet	179 Chittenden Ave., Columbus, Ohio
Krauss, Miss Bertha	78 S. 3rd St., Columbus, Ohio
Kreis, Mrs. John F.	Marion, Ohio
Larkin, Laura A.	South Charleston, Ohio
Lee, Mrs. Geo.	Canal Winchester, Ohio
Leigh, Miss Elizabeth	Groveport, Ohio
Leist, Mrs. J. F.	130 E. 11th Ave., Columbus, Ohio
Lilley, Mrs. E. J.	Circleville, Ohio
Lorentz, Lillian Rose	433 Neil Ave., Columbus, Ohio
Lowry, Mrs. John	484 Penn., Columbus, Ohio
Ludwig, Amalia E.	423 S. Champion Ave., Columbus, Ohio
McCord, Mrs. J. C.	Ashville, Ohio
McClure, Mrs. Ray T.	Washington C. H., Ohio
McDowell, Clara J.	Ironton, Ohio
McGaughy, F. C.	Galion, Ohio
McGuire, Mary	1824 E. Broad, Columbus, Ohio
McIntyre, Low	Columbus, Ohio
Maag, A. L.	Hallsville, Ohio
Maloy, Mrs. Geo.	137 Sherman, Columbus, Ohio
Matson, Grace B.	Ashtabula, Ohio
Minch, Thelma	36 King Ave., Columbus, Ohio
Miller, Mrs. Gertrude	Franklin, Ohio
Miller, Mrs. S. J.	91 E. Main St., Columbus, Ohio
Miller, Mrs. L. E.	706 E. Market St., Washington C. H., Ohio
Miller, Mrs. O. J.	Mt. Gilead, Ohio
Miller, Mrs. Mary	Lithopolis, Ohio
Minister, Geo.	1321 Forsythe Ave., Columbus, Ohio
Moore, Mrs. Cora E.	2183 Cornell Rd., Cleveland, Ohio
Morningstar, Helen	1276 Franklin Ave., Columbus, Ohio
Mosteller, Mrs. Emily H.	Newark, Ohio
Mosteller, Eva B.	Newark, Ohio
Mosteller, Carrie F.	Newark, Ohio
Morgan, Mrs. D. F.	818 Park St., Columbus, Ohio
Norrington, Mrs. G. A.	Linden Heights, Ohio
Osborne, Helen H.	Columbus, Ohio
Parker, Mrs. M. A.	Delaware, Ohio
Patterson, Lena	Athens, Ohio
Patterson, Mrs. Margaret	1097 S. High St., Columbus, Ohio
Pace, John	229 15th Ave., Columbus, Ohio
Paine, Silvio	345 E. Kossuth St., Columbus, Ohio
Payne, Mrs. W. M.	1021 Hunter St., Columbus, Ohio
Peck, Mrs. Francis S.	1369 Forsythe Ave., Columbus, Ohio
Peters, Hazel	Columbus, Ohio
Pettit, Ruth	Columbus, Ohio
Phelps, Miss Adeline	442 W. 6th Ave., Columbus, Ohio
Phelps, Mrs. A. W.	442 W. 6th Ave., Columbus, Ohio
Phelps, Jennie J.	442 W. 6th Ave., Columbus, Ohio
Porter, Mrs. Della	769 Neil Ave., Columbus, Ohio
Priest, Mrs. R. W.	365 W. 4th Ave., Columbus, Ohio
Pulliam, Mrs. L. J.	1020 S. 7th St., Springfield, Ohio
Rainey, Marie C.	6034 Jefferson Ave., Chicago, Ill
Rambo, Mrs. C. M.	Zanesville, Ohio
Rannells, Will	Zanesville, Ohio

WOMAN'S WORK AND FINE ARTS DEPARTMENT—Concluded.

Reader, Mrs. A.	703 Felton Ave.,	Columbus, Ohio
Reiss, Mrs. C. E.	87 12th Ave.,	Columbus, Ohio
Richey, Miss Daisy A.	1495 E. Main St.,	Columbus, Ohio
Richey, Mrs. Sarah E.	1495 E. Main St.,	Columbus, Ohio
Richards, Mrs. Dan. E.	1373 Eastwood Ave.,	Columbus, Ohio
Rife, Mrs. Mary B.	337 12th Ave.,	Columbus, Ohio
Rhoads, Mrs. Wm.	179 Chittenden Ave.,	Columbus, Ohio
Rhoads, Miss Vivian	179 Chittenden Ave.,	Columbus, Ohio
Rockey, Mrs. C. J.		Mt. Vernon, Ohio
Russell, Mark	1087 S. High St.,	Columbus, Ohio
Russell, Mrs. W. S.	485 Allyn St.,	Akron, Ohio
Russell, Mary W.	441 E. Grand Ave.,	Springfield, Ohio
Saltzgaber, Mrs. G. V. H.		Van Wert, Ohio
Sands, Mrs. Geo.		Kokomo, Ind
Sampson, Mrs. B. F.	1103 Pennsylvania Ave.,	Columbus, Ohio
Schille, Alice	1166 Bryden Road,	Columbus, Ohio
Scott, Annie	1274 Summit St.,	Columbus, Ohio
Scott, Miss Hulda		Kenton, Ohio
Seipel, Francis H.	453 S. Ohio Ave.,	Columbus, Ohio
Seligue, Miss Florence		Mt. Vernon, Ohio
Seligue, Miss Mary		Mt. Vernon, Ohio
Shauweker, Mrs. F. S.		Coshocton, Ohio
Shafer, Alma		Cambridge, Ohio
Shook, Mrs. Belle		Kenton, Ohio
Shotwell, Karl R.	1713 12th Ave.,	Columbus, Ohio
Shrann, Mrs. Theobald	1299 Summit St.,	Columbus, Ohio
Sibley, Ferol	103 W. Patterson Ave.,	Columbus, Ohio
Slater, Mrs. C. C.		Mechanicsburg, Ohio
Smith, Miss Rachel M.		Trinway, Ohio
Sorman, Mrs. Golda		Kokomo, Ind
Spangler, Mrs. F. F.	211 W. 5th Ave.,	Columbus, Ohio
Springer, Carl	Sta. A,	Columbus, Ohio
Stewart, Mary		Jacksontown, Ohio
Stewart, H. E.		Thornville, Ohio
Stilwell, Mrs. Marjorie	634 Oak St.,	Columbus, Ohio
Stratton, Mrs. Jennie	181 S. 6th St.,	Columbus, Ohio
Taylor, Mrs. F. D.	604 W. State St.,	Chicago, Ill
Titworth, Mrs. Guy		Sedalia, Mo
Todhunter, Bessie H.	1731 Summit St.,	Columbus, Ohio
Vance, Fred N.		Crawfordsville, Ind
Voll, Harriet		Circleville, Ohio
Vorhies, Miss Alice		Delaware, Ohio
Wagganan, Mrs. L. A.		Kokomo, Ind
Walter, Mary E.		Lancaster, Ohio
Washburn, Grace	291 E. 16th Ave.,	Columbus, Ohio
Warman, Miss L. P.	2727 Harris Ave.,	Norwood, Ohio
Waters, R. Kinsman	Sta. A,	Columbus, Ohio
Weaver, Mrs. E. E.	835 Atchison,	Columbus, Ohio
Wehr, Clara		Athens, Ohio
Welch, Mrs. Wm.	2339 Broadway,	Indianapolis, Ind
White, Mrs. C. D.		Orient, Ohio
Wilders, Mrs. W. E.	771 N. High,	Columbus, Ohio
Wolff, Mrs. W. B.		Mansfield, Ohio
Wrinkle, Mrs. J. S.	1257 E. Long St.,	Columbus, Ohio
Young, Grace E.	850 Oak St.,	Columbus, Ohio
Young, Mrs. S. R.		Kenton, Ohio

AGRICULTURAL COMMISSION OF OHIO

A. P. SANDLES, President

**Official Report on
Commercial Fertilizers
and Agricultural Lime**

**Licensed, Inspected and Analyzed
During the Year**

1913

(401)

GREETINGS—1913

This report contains facts governing the inspection and analysis of commercial fertilizers and agricultural lime sold in Ohio during the year 1913.

Buyers now recognize value of these reports; not only from a standpoint of commercialism, but from one of inherent worth and actual results obtained.

Chemist's findings on the different brands of agricultural lime shown for the first time herein. This is most essential, for not until recently were buyers given protection in the purchase of such products.

Co-operation is more prevalent today than ever before. With a better understanding of goods purchased, one intelligently orders with a view of increasing crop yield and supplying lacking elements of which the soil is in need of, and thereby helps fulfill object for which the Division of Agriculture has long been striving.

The purchase of high grade goods in lieu of the cheaper brands calls for less tonnage and less freight charge. This means less labor in handling the goods, with a resultant saving in both time and money.


President.

ITEMS OF INTEREST

FERTILIZER INSPECTION AND ANALYSIS.

The judicious use of commercial fertilizers is a big problem when considered in all its bearings. The Experiment Stations of the country have added much knowledge applicable to its scientific use, for they have established certain practices that are helpful through crop rotation.

Ohio expends annually three and a half million dollars for the purchase of commercial fertilizers. Most of this is well spent, but it can be better spent in a more careful selection of goods, by adapting the fertilizer to the needs of the crop and the soil upon which it is grown, and by buying on basis of plant food only, rather than by seeking goods that sells for a low price per ton. Only in the purchase of high grade goods can we hope for results exceeding our expectations.

Our present Fertilizer Law became effective December 1, 1911.

It was passed in the interest of the farmer, for prior to that date law permitted lee-way of 6.00% in total money value before evidence of fraudulent intent was presumed.

All companies now required to give one hundred cents on the dollar.

Chemist's findings of goods sold in Ohio during 1913 and listed in the annual report should conform thereto.

The demand for good fertilizer increases.

Much of the tillable soil in Ohio is in need of some fertilizing elements.

Farmers should give this subject attention and inquire of the Experiment Station, Wooster, or farmers' institute lecturers concerning same.

Inspectors visit every section of the state in order to secure samples of fertilizers exposed for sale.

Analysis of the different brands of fertilizers found by Inspectors on the open market are published from time to time in the Official Bulletin.

Users of fertilizers not required to wait till the end of the year before learning chemist's findings.

The publicity given in the Official Bulletin to brands of fertilizers falling below guarantee has been conducive of good results.

Chemist at Ohio State University, recommended by President W. O. Thompson, makes official analyses.

Farmers should make sure that fertilizer companies are of good standing and licensed in Ohio before purchasing.

They should buy with the understanding that the analysis of the state chemist shows goods up to guarantee.

Farmers, but not dealers or agents, can have brands of fertilizers sent to the Division of Agriculture and analysis made upon payment of \$1.00 for each element for which analysis is asked; ammonia and potash one each; phosphoric acid two.

Before sending sample, communicate with the Division of Agriculture, asking for instructions as to how to draw sample.

The main requirement of the Fertilizer Law is in stating Sources of Ammonia. If muck, peat, pulverized leather, hair, ground horn, wool waste or other materials in which the ammonia is largely unavailable is used, it must be stated on sack or tag affixed thereto.

SOURCES OF AMMONIA.

AVAILABLE SOURCES OF AMMONIA.

Our present Fertilizer Law calls for Sources of Ammonia. Materials used are classes of ANIMAL, MINERAL and VEGETABLE.

ANIMAL: Animal Tankage, Dried Blood, Fish Scrap, Bone Meal, etc.

MINERAL: Sulphate of Ammonia, Nitrate of Soda, Cyanamid, etc.

VEGETABLE: Cotton Seed Meal, Castor Pomace, Garbage Tankage, Oil Seed Meal, Tobacco Stems, Tobacco Dust, etc.

UNAVAILABLE SOURCES OF AMMONIA.

The manufacturer who uses muck, peat, pulverized leather, hair, ground horn or wool waste, or other similar materials in which the ammonia is largely unavailable, may expect his sales to decrease among those farmers who learn to make use of the information furnished in the Official Bulletins.

ADVANCE REPORTS.

No advance Report of Analysis on the different fertilizer brands licensed will be given out. The findings published in the Bulletins from time to time are sufficient for all parties concerned. In case where Chemist's findings show any one ingredient $\frac{1}{4}$ of 1% less than Manufacturer's claims, sample is re-tested and results not published until receipt of report on second analysis. This eliminates possibility for error.

All licensed brands will appear in Official Bulletin.

LICENSES.

Commercial Fertilizers and Agricultural Lime must be licensed before sold or offered for sale in Ohio. All licenses expire with the calendar year, December 31st; hence any commercial fertilizer or agricultural lime found on the market at any time during the year will require license.

FEE \$30.

This amount cannot be pro-rated under the provisions of the fertilizer or agricultural lime law. If manufacturer license goods, agents and dealers are relieved from license liability. Communicate with the Division of Agriculture at Columbus and ascertain facts to avoid liability.

MISSING SAMPLES.

Inspectors were unable to locate samples of all brands registered in 1913. Many of these were of shipments made during the Spring, and flood conditions prevailing in Ohio at that time mainly responsible. When railroad transportation was restored the demand for fertilizers was so strong that many companies could not supply their trade.

SAMPLES COLLECTED.

During 1913 inspectors collected 1,792 samples of fertilizers. They covered every nook and corner of the state, but in spite of this were unable to locate samples of all brands registered.

COMMENT.

S. M. Hess & Bro., Inc., of Philadelphia, Pa., and Cleveland, Ohio, claim Source of the Insoluble Phosphoric Acid in "ACID PHOSPHATE" and "ACID PHOSPHATE AND POTASH" Brands as being from mixed animal and mineral matter.

Chemist reports the Insoluble as being from rock.

Hirsh, Stein & Company, of Chicago, Ill., claim animal and mineral matter as being Source of the Insoluble Phosphoric Acid in "ACID PHOSPHATE AND POTASH" Brands. Chemist reports same as being from rock.

EARLY HISTORY.

Ohio's first Fertilizer law enacted March 16, 1881. The first Fertilizer Plant established in the State was in 1874. During that year three companies were incorporated, one of which is still in existence, the Cleveland Dryer Company, of Cleveland, now part of the American Agricultural Chemical Company.

SUMMARY OF CHEMIST'S FINDINGS.

Chemist's findings on brands published in this report exceed Manufacturers' CLAIMS. On a money basis this would be equivalent to ten per cent. It is therefore apparent that the Fertilizer Companies are endeavoring to give purchaser one hundred cents or more in value for each dollar paid them, which the new law requires. The old law permitted a margin of six per cent. in total money value, which was charged against the buyer.

PAGES OF REPORT DATED 1913.

All pages of this report dated 1913. In the event any are clipped therefrom, you can readily ascertain the year by referring to the date on that particular page.

CLAIMS FOR PHOSPHORIC ACID.

The Ohio Fertilizer Law requires that source of the Insoluble Phosphoric Acid be given, when claimed.

Some companies selling complete fertilizers give source as animal and mineral matter.

Where the percentage claim of the Insoluble Phosphoric Acid is small, no comment from this office necessary, but if claims run 5% or higher, and its source is given as *animal* and *mineral* matter, we would have purchaser consider a moment before placing an order for that particular brand.

The Chemist has no satisfactory method of determining separately the amount of bone and rock present in a mixture of the two. There is a good chance for misrepresentation where companies claim only a small amount of mineral matter. Our advice to purchaser would be to hesitate before buying fertilizer high in INSOLUBLE matter where the Insoluble is claimed to be from both animal and mineral matter. If one buys fertilizer high in insoluble matter it should either be straight bone or plain rock fertilizer, for then purchaser knows exactly what he is getting.

BONES.

Bone is about 40% organic matter and approximately 60% mineral.

The Organic matter is the source of the Ammonia and the Mineral portion the Calcium Phosphate.

Bones are classified as:

RAW BONE MEAL—Results from boiling slightly to remove flesh and fat; the organic matter remains.

BONE MEAL—Results from cooking packing house bones in open vats for glue.

STEAMED BONE MEAL—Similar to Bone Meal, except that it is treated in pressure tanks under high steam pressure. The process removes more glue than the open vat boiling, thereby reducing the percentage of Ammonia.

ACIDULATED BONE MEAL—Results from treating Bone Meal with Sulphuric Acid in order to make the Phosphoric Acid available.

BRANDS LICENSED.

In 1908, 565 brands were licensed.

In 1909, 666 brands were licensed.

In 1910, 698 brands were licensed.

In 1911, 756 brands were licensed.

In 1912, 785 brands were licensed.

In 1913, 827 brands were licensed.

License fee \$30 per brand.

FERTILIZER USED—A COMPARISON.

Some states require no official record of tonnage, only registering the brand for taxation and inspection.

Below we give tonnage of fertilizer used in Ohio and Indiana since 1905. As a contrast we show tonnage reported by both Georgia and South Carolina.

	<i>Ohio.</i>	<i>Indiana.</i>
1905 -----	115,308 tons	86,771 tons
1906 -----	121,354 "	98,571 "
1907 -----	118,021 "	100,791 "
1908 -----	116,259 "	102,309 "
1909 -----	146,384 "	134,064 "
1910 -----	174,508 "	151,856 "
1911 -----	160,925 "	179,533 "
1912 -----	151,254 "	143,678 "
1913 -----	-----	193,899 "

	<i>Georgia.</i>	<i>South Carolina.</i>
1904-5 -----	622,414 tons	481,637 tons
1905-6 -----	743,424 "	662,688 "
1906-7 -----	728,361 "	631,032 "
1907-8 -----	766,166 "	680,791 "
1908-9 -----	807,832 "	758,363 "
1909-10 -----	1,030,699 "	975,039 "
1910-11 -----	1,202,722 "	1,048,806 "
1911-12 -----	1,225,100 "	886,223 "
1912-13 -----	1,243,668 "	918,336 "

FERTILIZER FOR SOIL DEFICIENCY, OR CROP REQUIREMENTS.

When purchasing fertilizers do you buy goods containing those elements which the soil lacks, or is deficient in, viz.: Nitrogen, Phosphorus and Potassium; or do you buy those elements in a fertilizer that the crop to be raised is in need of?

You are aware that Ohio farmers spend millions of dollars every year for fertilizers. The use of fertilizers intelligently applied, gives good returns on time, money and labor invested. Some apparently get little or no return for their efforts; WHY?

WHAT ARE THE INDICATIONS OF THE NEEDS OF FERTILIZERS?

The constantly decreasing yields of the principal crops grown in the state, together with the poor quality of grain. When the crop is yellow and will not grow it lacks nitrogen; when the ears of corn and the heads of wheat fail to fill with plump, ripe kernels it lacks Phosphoric Acid. Potash is needed for the starch and sugar in the plant. It also gives stamina to the straw.

WHAT "PER CENT." MEANS IN BUYING FERTILIZERS.

"Per cent." is simply an abbreviation for percentum or per hundred. Acid Phosphate of 16 per cent. simply means that the article has sixteen pounds of phosphoric acid in each 100 pounds, the rest being made up of various earthly matters found in the rock from which the phosphate is made. By knowing the amount of each elementary material in 100 pounds it is easy to arrive at the percentage that each would bear to a ton, or 2,000 pounds. A 2-8-2 goods for instance, would have twelve pounds of plant food to each 100 pounds, or 240 pounds of plant food to the ton. It is well to remember this when purchasing fertilizers

HOW CAN YOU PROTECT YOURSELF IN THE PURCHASE OF FERTILIZERS?

By paying strict attention to the result of analyses published in the Official Bulletins issued by the Division of Agriculture. These are pub-

lished periodically and contain reliable information, and should be in the possession of every buyer of commercial fertilizers. If interested in the use of fertilizers communicate with the Division of Agriculture at Columbus, requesting that your name may be placed on the mailing list for future publications.

THE EFFECT OF FERTILIZERS ON CROPS.

Fertilizers should be in good mechanical condition. They should be uniformly mixed, finely ground, dry and drillable. Not all of the fertilizer is used up by the crop to which it is applied. If the fertilizer is applied systematically, it adds fertility to the natural store of the soil and shows its effect in succeeding crops.

WHY IS THE USE OF FERTILIZERS IN OHIO A GOOD INVESTMENT?

Because it is more intelligently used than ever before; because many farmers now buy solely on basis of plant food only, rather than by name of BRAND or PRICE per ton; because we have now for the first time a good fertilizer law passed in your interest.

Give us the benefit of your experience and write us your method of buying fertilizers.

AGRICULTURAL LIME.

The Experiment Station recommends the purchase of those limes containing the largest percentage of calcium and magnesium combined; these constituents being equally useful in neutralizing soil acidity.

LIQUID FERTILIZERS SOLD UNDER SPECIAL NAMES, ETC.

Such preparations should be valuable and efficient for the purposes claimed for them by the company manufacturing or compounding them; but on the other hand, there is no special reason for believing that they have any special merits merely because they are put up under a fancy label. A mixture containing sodium nitrate and phosphoric acid and sold as "Fertiqui," a liquid fertilizer, is no better just because of the label.

The farmer, gardener and fruit grower can, however, be sure of one thing, and that is that he is paying a fancy price for what he buys when he buys his chemicals or fertilizers in this way. Sodium nitrate sold under its true name can be bought for fertilizing purposes for about three cents a pound, and any one would have reason to feel that his

dealer was making an undue profit if he tried to sell it to him in quantities for five or six cents a pound. However, sodium nitrate and phosphoric acid in a Liquid Fertilizer may sell for fifty cents a pound and the purchaser be none the wiser.

The Division of Agriculture has on file literature describing a special fertilizer preparation claimed to contain one per cent. of nitrogen and one per cent. of phosphoric acid, which mixture is supposed to retail at one dollar a gallon. Doubtless the mixture is a good fertilizer, but consider for a moment and count the cost. One per cent. of eight pounds (one gallon) equals 0.08 pounds nitrogen. One per cent. of eight pounds equals 0.08 pounds phosphoric acid. If nitrogen be considered as worth twenty cents per pound and phosphoric acid five cents per pound, the market value of the fertilizer ingredients figure up less than three cents a gallon, so you see the cost of the label will be 97 cents.

A pound of sodium nitrate or of ammonia sulphate dissolved in 100 gallons of water and sprinkled on plants or lawn will certainly stimulate plant growth. As for phosphoric acid, any high grade phosphate fertilizer sprinkled lightly around plants, bushes and shrubs, and worked into the ground with rake or hoe and allowed to be carried further into the soil by the water from showers or sprinkling hose, is just as efficient as that purchased as an ingredient in a liquid fertilizer scientifically and specially compounded.

In using fertilizers on small plots of vegetables or flowers, care should be taken not to use too much. Two hundred pounds of sodium nitrate and 500 pounds of phosphate to the acre is equivalent to about 2-5 pound of nitrate and one pound of phosphate on a plot, 10 feet square.

Before buying proprietary preparations a safe rule is to value the special proprietary plant food according to the market value of the guaranteed contents, and find out in this way just what one is expected to pay for the label.

However, it is folly to pay a fancy price for liquid fertilizers just because some one claims to have prepared a wonderful secret preparation; better than anything else ever put up. Does one ever hear of a secret preparation that according to the manufacturer is not the best and most efficient preparation ever produced?

NOTICE TO CONSUMERS.

Do not purchase any brand of fertilizer or agricultural lime from any Manufacturer, Firm, Agent or Dealer unless you know positively that such brands have been legally licensed, in accordance with the laws of the state of Ohio.

ANALYSES FOR CONSUMERS.

Farmers, not dealers or agents, can have brands of fertilizers sent to the Division of Agriculture and analysis made upon payment of \$1.00 for each element for which analysis is asked; ammonia and potash one each; phosphoric acid two.

Care must be taken in selecting sample, in order that it may represent fairly and impartially the goods desired to be analyzed.

A sample for such analysis shall be taken by the purchaser in the presence of two disinterested witnesses, at the time and place of delivery to purchaser from sacks not theretofore opened, broken or resacked, from at least ten per cent. of the sacks or other packages comprising the whole lot purchased. If there be less than one hundred sacks in the lot purchased, samples must be taken from not less than ten sacks; and if there is less than ten sacks in the lot purchased, samples shall be taken from each sack. Draw a small portion from different places in each sack—top, sides and bottom, mix thoroughly and place two pounds into two cans or jars, marked to identify it and to show by whom sent, securely sealed and labeled, and forward to the Agricultural Commission of Ohio, Division of Agriculture, Columbus, together with printed certificate from one of the bags or packages so sampled, express charges prepaid, accompanied by a fee of \$1.00 for each element for which analysis is asked, as required by law. Sender should plainly mark his name and address on package, also name of manufacturer.

CLAIMS AND ANALYSES.

Chemist's findings together with Manufacturer's claims of brands found on the market appear in this report side by side. We also print Manufacturers' claims for those brands licensed but not found by Inspectors.

This Department analyzes goods found by Inspectors on the open market, in the hands of consumer, agent or in transit, and publish results of chemist's findings. As to the quality of the licensed goods offered for sale purchaser must decide for himself. Samples not taken from goods stored at some particular point, but from all sections of the state.

SUMMARY OF THE FERTILIZER LAW.

Every Package must have printed in a conspicuous place on the outside thereof the number of net pounds, name, brand or trade mark under which it is sold, with name and address of manufacturer.

ALSO THE MINIMUM percentage guaranteed of ammonia, of potash soluble in water, and of phosphoric acid available. If insoluble phosphoric acid is claimed, show source of same.

WHERE THE SOURCE OF ANY OR ALL OF THE AMMONIA is derived from muck, peat, pulverized leather, hair, ground horn, wool waste or similar materials in which the ammonia is largely unavailable, such material must be specifically printed on packages, bags or tags attached thereto. If from other sources more highly available, either name them or state whether from *animal, mineral or vegetable*.

STATE SOURCE OF INSOLUBLE PHOSPHORIC ACID IF CLAIMED; whether from animal or mineral, or mixture of the two.

USE OF FALSE OR MISLEADING NAME, BRAND OR TRADE MARK, in designating any commercial fertilizer is prohibited.

GOODS MUST ANALYZE up to Manufacturer's claims.

Amended Sec. 1142. No commercial fertilizer shall be sold or offered for sale if the percentage of any ingredient, element or constituent is less than the minimum percentage claimed or guaranteed; provided that there may be a deficiency of six per cent. of the amount claimed in any one ingredient before evidence of fraudulent intent shall be presumed; if there is a corresponding excess in the other ingredients claimed on the basis of the following equivalents in value: One part of ammonia shall be deemed equivalent to three parts of available phosphoric acid; one part of ammonia shall be deemed equivalent to three parts of potash; one part of ammonia shall be deemed equivalent to six parts of insoluble phosphoric acid from animal matter; one part of ammonia shall be deemed equivalent to twelve parts of insoluble phosphoric acid from mixed animal and mineral matter; in bone or tankage, one part of ammonia shall be deemed equivalent to five parts of total phosphoric acid.

PENALTIES.

Violation of any of the provisions of the Commercial Fertilizer Law is punishable on conviction by a fine not less than \$50 nor more than \$200, for the first offense; for a second or subsequent offense not less than \$200 nor more than \$500, or imprisonment not more than six months, or both.

Agents and dealers should have written contracts with Manufacturers not located in Ohio that they will be responsible for all penalties and fines imposed.

ENFORCEMENT OF THE LAW.

The attorney general, or any prosecuting attorney, shall prosecute all violations of the fertilizer law.

SOIL ELEMENT DEFICIENCY.

This is the age of scientific farming. The farmer who proceeds scientifically keeps his soil built up to its maximum productivity. To do this he must know the cause for deterioration, what the soil contains and what it lacks, and what crops they are by nature best suited for. The Experiment Station at Wooster will co-operate and advise elements of which soils are most deficient. Below are given some general principles that will do well to remember.

Clay Soils are generally deficient in nitrogen and phosphorus, but contain potassium. The tendency is for clay soils to bake and get hard, and the addition of a little lime is calculated to correct this.

Black Soils are strong in nitrogen, but sometimes short of phosphorus and potassium. Such soils usually need drainage.

Sandy Soils are generally deficient in potassium. Roughly speaking they are short on all the soil elements. Here is another case where lime will prove a sweetener and will help to retain moisture.

AGRICULTURAL LIME.

As there seems to be some confusion in the minds of purchasers of Agricultural Lime as to how to get the percentage equivalents of the different forms of lime and magnesia, we believe it profitable and valuable in a practical way to purchasers of Agricultural Lime to give below a ready reference table; whereby it is possible to convert any form of combination of calcium or magnesium that might exist in the samples of Agricultural Lime into any other desired form of combination.

LIME ROCK OR LIMESTONE.

Companies selling Ground Limestone Rock for agricultural purposes should make claims for calcium and magnesium carbonate; as well as show percentages of material that will pass through a 10-50-100 mesh sieve. Chemically speaking, Limestone Rock has no free calcium or magnesium oxides.

BURNT OR QUICK LIME.

Make claims for calcium and magnesium oxide.

HYDRATED LIME.

Make claims for calcium and magnesium oxide.

TABLE OF EQUIVALENTS.

<i>Given.</i>	<i>Required.</i>	<i>Factor.</i>
Calcium oxide.....	Calcium hydroxide.....	1.321
Calcium oxide.....	Calcium carbonate.....	1.786
Calcium carbonate.....	Calcium oxide.....	0.56
Calcium carbonate.....	Calcium hydroxide.....	0.74
Calcium hydroxide.....	Calcium oxide.....	0.757
Calcium hydroxide.....	Calcium carbonate.....	1.351
Magnesium oxide.....	Magnesium carbonate.....	2.09
Magnesium oxide.....	Magnesium hydroxide.....	1.45
Magnesium carbonate.....	Magnesium oxide.....	0.478
Magnesium carbonate.....	Magnesium hydroxide.....	0.692
Magnesium hydroxide.....	Magnesium oxide.....	0.69
Magnesium hydroxide.....	Magnesium carbonate.....	1.45

In this table multiply the percentage of your given (or known) combination by the factor opposite the combination required. For example, a sample of limestone contains 75% calcium carbonate. What per cent. calcium oxide does it contain? By referring to table you will see that it is only necessary to multiply $75 \times 0.56 = 42\%$. Again, if this sample contains 15 per cent. magnesium carbonate and it is desired to find the per cent. of magnesium hydroxide, multiply 15 by $0.692 = 10.38$ per cent. In this way, any desired combination can be worked out.

SUMMARY OF THE AGRICULTURAL LIME LAW.

A \$30.00 LICENSE FEE must be paid for each brand of AGRICULTURAL LIME sold or offered for sale in Ohio.

When filling in application for BURNT LIME, state minimum percentage of CALCIUM OXIDE with minimum and maximum percentages of MAGNESIUM OXIDE. For HYDRATED LIME state minimum percentage of CALCIUM OXIDE with minimum and maximum percentages of MAGNESIUM OXIDE. For LIMESTONE ROCK or MARL state percentages of CALCIUM and MAGNESIUM CARBONATES and the amounts of the total material that will pass through a 10-50-100 Mesh Sieve to the linear inch.

THE TERM AGRICULTURAL LIME, as here used, shall include all quick lime, both lump and ground, ground lime stone, ground or pulverized oyster shells, sulphate of lime or plaster, hydrated lime, gas lime, marl, and all other similar products.

THE HOME-MIXING OF FERTILIZERS.

BY CHAS. E. THORNE,

Director, Ohio Experiment Station, Wooster, Ohio.

We use commercial fertilizers in order to feed our crops on three chemical elements and three only, namely: nitrogen, phosphorus and potassium. It is true that several other elements are equally essential to the growth of the plant, but these are furnished by the soil in sufficient quantity or without our aid. It is also true that some soils must be limed before they will yield remunerative crops, and it is further true that lime is an essential plant food; but we apply lime chiefly as a soil corrective and not primarily as a plant food, as we do the three elements first mentioned. In other words, lime will be required as a soil corrective before it is needed as a plant food, and when we use it for the first mentioned purpose it will also serve the second.

FERTILIZING MATERIALS.

While there are numerous commercial materials that may be used in fertilizing the soil there are three or four which are so easily obtained, and also so effective, that the Ohio farmer has at present no occasion to look for anything else. These are nitrate of soda, muriate of potash, acid phosphate and steamed bonemeal.

NITRATE OF SODA.

Nitrate of soda is a coarse, grayish salt, imported from Chile, South America, and hence is sometimes called Chile saltpetre. It should contain about $15\frac{1}{2}$ per cent. nitrogen, and is the most effective carrier of nitrogen in use for fertilizing purposes. The usual cost, including freight, is about $2\frac{3}{4}$ to 3 cents per pound in small lots by the time it reaches the Ohio farmer, but when bought by the carload this cost may be much reduced. Like common salt it absorbs moisture from the atmosphere and becomes lumpy, so that it is necessary to sift it and break the lumps when preparing to use it. A common sand sieve, such as masons use, with quarter-inch meshes, will separate the lumps, which may be broken up with the back of a shovel or a wooden pestle and sifted again. The lumps constitute but a small proportion of the entire bulk.

MURIATE OF POTASH.

Muriate of potash is also a coarse salt, resembling nitrate of soda so closely that it requires considerable experience to distinguish them. The sacks, or bins, therefore, in which these materials are stored, should

be kept carefully labeled. The world's supply of muriate of potash now comes almost wholly from mines near Stassfurt, Germany, from whence it is shipped to this country, usually in sealed sacks containing 224 pounds. It should analyze 50 per cent. actual potash. Muriate of potash is the commercial name for this material, but its correct name is potassium chloride, since it is a combination of the elements potassium and chlorine (common salt is chemically sodium chloride).

Potash is a combination of the elements potassium and oxygen, containing about 83 per cent. of the former and 17 per cent. of the latter, and having the chemical symbol K_2O , which is sometimes found on the fertilizer sack.

ACID PHOSPHATE.

Acid phosphate is an American product, being derived from phosphate rocks found in South Carolina, Florida and Tennessee, which are quarried, dried and ground into a fine powder which is then mixed with approximately an equal weight of sulphuric acid, the object of this treatment being to convert the phosphorus of the rock into a soluble form. When thus treated an acid phosphate should contain from 14 to 18 per cent. available "phosphoric acid" or 6 to 7 per cent. phosphorus; phosphoric acid, like muriate of potash, being a trade name. As it is the nitrogen for which we buy nitrate of soda, and the potassium for which we buy muriate of potash, so it is the phosphorus for which we buy acid phosphate. The phosphoric acid of the fertilizer sack is a compound consisting of about 44 per cent. phosphorus and 56 per cent. oxygen, hence an acid phosphate analyzing 14 per cent. phosphoric acid would contain about 6 per cent. phosphorus, and 18 per cent. of phosphoric acid would be equivalent to nearly 8 per cent. phosphorus.

MISLEADING NAMES.

Acid phosphate is sometimes sold for just what it is, but more often it has some misleading name attached to it, as "Soluble Bone," "Dissolved Bone," "Wheat Special," "Dissolved Phosphate," etc., etc. Any material showing 10 to 18 per cent. available phosphoric acid, and nothing else, may safely be assumed to be a plain acid phosphate. It has been supposed that the phosphate beds owe their origin to the bones of primeval animals, but the substance is now just as truly a rock as is common limestone, and the evident purpose of calling an acid phosphate a "dissolved bone" is to deceive those who have a prejudice against "rock goods."

SOURCE OF FERTILIZER PHOSPHATE.

Animal bone was the first discovered source of fertilizer phosphate, the effect of broken or pulverized bones on the growth of plants having been noticed at an early date. When chemists began to turn their atten-

tion to agricultural problems they found that the active principle of bones was phosphorus. When this discovery was made the next step was to make use of rocks containing phosphorus, but these were found to be practically inert in their natural condition. The discovery that rock phosphate could be made available by treatment with sulphuric acid was first put into practical effect by John Bennet Lawes of England, and his work opened the door to the great fertilizer industry of today.

BONE MEAL.

Raw bone meal has been a favorite fertilizing material, but a 7-year test by the Ohio Experiment Station, in which 200 pounds per acre each of raw and steamed bone meal have been used side by side in a rotation of corn, wheat and clover, has given the following results:

Form of bone meal.	Annual increase per acre.		
	Corn, bu.	Wheat, bu.	Hay, lbs.
Raw -----	7.64	13.19	1,309
Steamed -----	11.24	14.89	1,300

Other experiments have shown that this soil is especially responsive to phosphorus, and to this fact, as well as to the finer condition of the steamed bone meal, is apparently due the result attained. The station has made no direct comparisons between steamed bone meal and acid phosphate, but the general outcome of its work indicates that the pound of phosphorus is practically as effective in one of these materials as in the other. Whether to use the one or the other, therefore, depends upon the cost per pound of the phosphorus contained, after making allowance for the nitrogen carried in the bone meal.

EXCESSIVE USE OF ACID PHOSPHATE.

It is true that the excessive use of acid phosphate will tend to increase acidity on soils deficient in lime, but experience has shown that when the lime supply is so low that acid phosphate will produce this effect it is time to begin liming, and when this is the case the additional quantity of lime required to neutralize the effect of an ordinary use of acid phosphate is so small as to make this point a negligible matter.

THE COMPOUNDING OF A FERTILIZER.

Having these three or four materials at command, it is an extremely simple proposition in arithmetic to mix them together so as to produce any desired formula. Suppose, for example, it is desired to compound a 1-8-1 fertilizer; that is, one containing 1 per cent. "ammonia," or 20 pounds per ton, 8 per cent. "phosphoric acid," or 160 pounds per ton, and 1 per cent. "potash," or 20 pounds per ton. Fertilizer "ammonia" is a compound of nitrogen and hydrogen containing about 82 per cent. nitrogen and 18 per cent. hydrogen. Nitrate of soda, as has been stated, is sold to contain $15\frac{1}{2}$ per cent. nitrogen, which would be equivalent to practically 19 per cent. "ammonia." To furnish the 20 pounds of ammonia in our formula would therefore require 110 pounds of nitrate of soda. The standard grade of acid phosphate contains 14 per cent. available "phosphoric acid" or 14 pounds per hundred; it would therefore require as many hundred pounds of acid phosphate to furnish 160 pounds of phosphoric acid as 14 is contained in 160, which is a little less than $11\frac{1}{2}$ times. As above stated, muriate of potash is 50 per cent., or one-half actual 'potash.' It would therefore require 40 pounds of the muriate to furnish the 20 pounds of potash required in the formula. Adding these materials together we get the following result:

Material.	Fertilizing Constituents.		
	Ammonia.	Phosphoric Acid.	Potash.
	Lbs.	Lbs.	Lbs.
Nitrate of soda, 110 lbs.-----	21	-----	-----
Acide phosphate, 1,150 lbs.-----	-----	161	-----
Muriate of potash, 40 lbs.-----	-----	-----	20
Total, 1,300 lbs.-----	21	161	20

USE OF MAKEWEIGHT.

This statement shows that it has required only 1,300 pounds of these three materials to give the number of pounds of ammonia, phosphoric acid and potash necessary to give the percentage in a ton of fertilizer called for by our formula. We therefore have the option of

either adding 700 pounds of some sort of makeweight—good dry sand or earth is as good as anything—to bring up the weight to a ton, or of using the fertilizer at a smaller rate per acre. In other words, 130 pounds of this mixture, just as it stands, will produce the same effect as 200 pounds after the dirt or other makeweight has been added, while this makeweight will add nothing whatever to the value of the fertilizer except to give the user a little more exercise in handling it and the railroads a little more freight, when it is purchased in the ready-mixed fertilizer.

COST.

If the materials for this mixture were purchased by the single sackful the cost should be about 3 cents per pound for the nitrate of soda, 2½ cents for the muriate of potash, and 80 cents per hundred for the acid phosphate.* At these rates the ton of fertilizer would cost, exclusive of mixing, as follows:

110 lbs. nitrate of soda @ 3c per lb.....	\$3 30
1,150 lbs. acid phosphate @ \$16 per ton.....	9 20
40 lbs. muriate of potash @ 2½c per lb.....	1 00
Total	<u>\$13 50</u>

If bought in carloads, under recent quotations the cost would be approximately as follows:

110 lbs. nitrate of soda @ \$54 per ton.....	\$2 97
1,150 lbs. acid phosphate @ \$13 per ton.....	7 48
40 lbs. muriate of potash @ \$44 per ton.....	88
Total	<u>\$11 33</u>

As there are dealers who will sell these materials in mixed carloads it would certainly be good business policy for neighboring farmers to join hands and purchase in carloads.

LOW GRADE FERTILIZERS.

Dried swamp muck usually contains 2 per cent. or more of nitrogen; and this material is being quite extensively used as the carrier of nitrogen in the cheap grades of fertilizers. A 1-8-1 fertilizer might be made up

*The retail price of 14 per cent. acid phosphate runs from \$14.00 to \$18.00 per ton in Ohio, the price depending upon the information of the purchaser. Muriate of potash has been offered at \$4.60 for a 200-pound sack or \$46.00 per ton, delivered at any Ohio point.

of muck, slaughterhouse tankage, acid phosphate and muriate of potash, as below :

Material.		Cost.	Fertilizing Constituents.		
			Ammonia.	Phosphoric Acid.	Potash.
			Lbs.	Lbs.	Lbs.
Dried muck.	800 lbs.	\$0 80	16		
Tankage (7-30)	200 lbs.	2 50	14	26	
Acid phosphate	960 lbs.	7 68		134	
Muriate of potash.....	40 lbs.	1 00			20
Total	2,000 lbs.	\$11 98	30	160	20

This estimate allows \$2.00 per ton for collecting and drying the muck, a liberal allowance when it is remembered that limestone is quarried, ground into a fine powder and sold on board cars for \$1.00 per ton.

Tankage is the residue left when scraps of meat, bone, etc., are cooked to extract the grease. It is dried and ground into a meal which varies in composition. A 7-30 tankage is one analyzing 7 per cent. ammonia, and 30 per cent. "bone phosphate," bone phosphate meaning a compound containing the same percentage of phosphoric acid contained in bone ash, namely: about 46 per cent.

A 1-8-1 fertilizer, however, is a very low grade. It requires just as much work to apply the 200 pounds of actual fertilizing constituents contained in a ton of such a fertilizer as to apply twice that quantity in a ton of higher grade, while the freight on the lower grade is twice as much as on the higher. The following formulæ are such as are used by the Experiment Station:

FORMULA.

Material.		Cost.	Fertilizing Constituents.		
			Ammonia.	Phosphoric Acid.	Potash.
			Lbs.	Lbs.	Lbs.
<i>For Spring Crops.</i>					
Nitrate of soda.....	250 lbs.	\$7 50	47	-----	-----
Acid phosphate	1,550 lbs.	12 40	-----	217	-----
Muriate of potash.....	200 lbs.	5 00	-----	-----	100
Total	2,000 lbs.	\$24 90	47	217	100
Percentage	-----	-----	2½	10¾	5
<i>For Wheat.</i>					
Steamed bone meal.....	700 lbs.	\$9 10	17	175	-----
Acide phosphate	900 lbs.	7 20	-----	126	-----
Muriate of potash.....	120 lbs.	3 00	-----	-----	60
Nitrate of soda.....	280 lbs.	8 40	51	-----	-----
Total	2,000 lbs.	\$27 70	68	301	60
Percentage	-----	-----	3.4	15	3
<i>An Animal Matter Fertilizer.</i>					
Steamed bone meal.....	1,000 lbs.	\$13 00	25	250	-----
7-30 tankage	800 lbs.	11 20	56	104	-----
Muriate of potash.....	200 lbs.	5 00	-----	-----	100
Total	2,000 lbs.	\$29 20	81	354	100
Percentage	-----	-----	4	17¾	5

In using the second formula it is the Station's practice to reserve the nitrate of soda and sow it broadcast in April, after the wheat has started into growth. This formula is now being used at the rate of 350 to 400 pounds per acre on wheat grown in a rotation of corn, oats, wheat and clover on 10-acre fields. The result has been an average yield of 33 bushels of wheat per acre for the last eight years, as against a previous 10-year average of 20 bushels, when the wheat received no fertilizer but was top-dressed with yard manure.

The last formula is made up of the materials that are used in the better grades of ready-mixed fertilizers. It contains a sufficient quantity of each of the fertilizing constituents to make two tons of a 2-8-2 fertilizer.

THE COST OF HOME-MIXING.

The materials above mentioned are all in the condition of coarse salts or fine powders. They have gone through such processes of manufacture as fit them for becoming articles of commerce; two of them acid phosphate and steamed bone meal, are in common use by farmers, who know they are in condition for use in the ordinary fertilizer drill; the other two resemble common salt in character, and only need to have lumps removed by sifting and pulverizing. These materials may be mixed together in any proportion, and when mixed they are ready for distribution by hand or drill. The mixing itself is a less intricate operation than the mixing of sand and lime into mortar, for no slaking is required, and the work may be done on any dry floor—a hard dirt floor is good enough—and with no other tools than those used in mixing mortar. Fifty cents per ton would be a very liberal allowance for the labor cost of mixing.

WHY NOT HOME-MIXING?

Fertilizer dealers are interested in persuading the farmer that he should not attempt home-mixing, for the reason that at the prices at which the ready-mixed fertilizers are usually sold there is a larger margin of profit to the dealer than on the separate materials. It is true that some brands of mixed fertilizers have been offered at prices which would make home-mixing unnecessary from the standpoint of cost; but farmers should learn the principles of home-mixing, and should not be deluded into paying a higher price for the nitrogen, phosphorus and potassium in a fertilizer with a fancy name, than the same quantities of these ingredients can be purchased for in nitrate of soda, acid phosphate and muriate of potash, for it has been demonstrated beyond all contradiction that no more effective fertilizing materials than these can be found in any fertilizer on the market.

IS HOME-MIXING AS GOOD AS FACTORY MIXING?

The fertilizer mixers insist with great emphasis that it is impossible for the farmer to mix his fertilizers as thoroughly as the professional mixer can do with his machinery. On this point the following statement issued by a large fertilizer house in explanation of a number of their brands having come under the list which Mr. Sandles regularly leads with the warning, "Danger! Stop! Look! Listen!" is interesting:

“We manufacture, all told, one hundred and seven different brands.
* * * A few of these brands, have, at times, fallen under the standard, as have brands of other companies. There certainly was nothing unusual about this for it is absolutely impossible to mix large quantities of fertilizer so perfectly that a man who is desirous of doing so cannot get samples of some brand at some place that may not show, upon analysis, the exact formula under which it is manufactured.”

No farmer is advised to mix sulphuric acid with phosphate rock to produce acid phosphate; that is a legitimate process of manufacture requiring special equipment and machinery, but this acid phosphate, once made, may be mixed by the farmer with such salts as nitrate of soda, sulphate of ammonia and muriate of potash with the assurance that it can be done as perfectly on the barn floor as in any fertilizer warehouse.

THE BEST IS THE CHEAPEST.

As has been stated above, acid phosphates vary in composition from 10 per cent. or under, to 18 per cent. or over of available phosphoric acid; in other words a ton of 10 per cent. acid phosphate will carry 200 pounds of useful phosphoric acid, while a ton of 18 per cent. will carry 360 pounds, or nearly twice as much. The Ohio supply of acid phosphate comes chiefly from Tennessee, and fully one-third of its cost to the Ohio farmer is represented in the item of freight, and the freight is just as much on the ton of 10 per cent. as on the ton of 18 per cent. phosphate, as is also the farmer's labor in hauling out and applying the fertilizer to his fields; hence the cost of the pound of available phosphoric acid—of actual plant food—is necessarily much greater in the low grade than in the high grade article, notwithstanding the lower price *per ton* at which the low grade phosphate may be sold.

WET MIXED VS. DRY MIXED FERTILIZERS.

More than half a century ago a young chemist-farmer in England—John Bennett Lawes—conceived the idea that the phosphorus in phosphatic rock might be made more available to crops by first dissolving it in sulphuric acid, and out of this “scientific use of the imagination” has grown the tremendous commerce of today in chemical fertilizers. For in Tennessee, South Carolina and Florida, and more recently in the mountain region where Montana, Wyoming and Idaho join corners, have been found millions upon millions of tons of crude phosphate rock, which on drying, grinding and treatment with sulphuric acid, yields in most available form this fundamental element of plant food, phosphorus.

CARRIERS OF FERTILIZING INGREDIENTS.

But phosphorus alone is not sufficient; the plant must have nitrogen, potassium and calcium, and these must be furnished in some form before phosphorus can be fully utilized. In the nitre beds of Chile are found enormous deposits of a crude salt which, when refined, gives us nitrate of soda, the most effective carrier of nitrogen used as a fertilizer. But there are other sources of nitrogen which in their natural condition are practically unavailable to crops. An acre of peat bog, for example, may contain nitrogen which would be worth ten thousand dollars if it were in available form, but which is not worth ten dollars in its present condition. From the great slaughter houses come many animal wastes which are rich in similar nitrogen, as well as from other industries.

Taking their cue from the results of treating phosphate rock with sulphuric acid, fertilizer manufacturers are also treating nitrogenous material of the character above referred to, and it is a common operation to mix all these crude materials together—the nitrogenous with the phosphatic—and treat them at one operation with sulphuric acid.

WHAT IS WET MIXING?

This is wet mixing, and is a necessary process when materials of the character indicated are used. But there are other fertilizing materials which do not need to be treated with sulphuric acid. As above stated, nitrate of soda is the most effective carrier of nitrogen used in fertilizers, and it not only needs no sulphuric acid treatment but such treatment would ruin it for fertilizing purposes. The same may be said of sulphate of ammonia and the new nitrogen carriers—nitrate of lime any cyanamid. Dried blood and slaughterhouse tankage—largely used as nitrogen carriers—do not require acid treatment. Neither do the German potash salts which are at present the almost exclusive source of fertilizer potash. Out of these materials—all of which are dry salts or powders—may be compounded by dry mixing any fertilizer formula that can be required for any purpose, and of such a mixture the following admission is made by one of the highest authorities in the fertilizer trade, a man who speaks always from the standpoint of the fertilizer manufacturer:

“It is true that we cannot make a wet mixed goods that would be of equal availability to a mixture composed of nitrate of soda, acid phosphate and muriate of potash.”

This whole matter may be boiled down in the following statement:

WET MIXING.

Wet mixing (that is, treatment of nitrogenous as well as of phosphatic materials with sulphuric acid) is followed in order to make use of inferior carriers of nitrogen.

The nitrogen utilized by wet mixing is still inferior in availability to that of nitrate of soda and similar salts.

Nevertheless, the price asked for "wet mixed" nitrogen is usually higher than that at which it may be purchased in the salts mentioned.

DRY MIXING.

The cheapest, therefore, as well as the most effective fertilizer is a dry mixture which any farmer can make of such materials as acid phosphate, steamed bonemeal, nitrate of soda or sulphate of ammonia, and muriate of potash.

RAW MATERIALS FOR HOME-MIXING.

Owing to the increased demand for raw materials used for home mixing of fertilizers, we give below names and addresses of firms, furnishing nitrogen and potash, raw rock phosphate and dried manures, who had license to sell in Ohio during 1913. This does not include bone and acid phosphates, which can be bought of nearly every firm having license to sell in this state during the current year.

MATERIALS CONTAINING AMMONIA.

SULPHATE OF AMMONIA.

American Coal Products Co., New York, N. Y.

NITRATE OF SODA.

Associated Chemical Company, Hagerstown, Md.

The American Agricultural Chemical Co., New York, N. Y. and Cleveland, Ohio.

Armour Fertilizer Works, Chicago, Ill.

Darling & Company, Chicago, Ill.

The Groves Company, Cincinnati, Ohio.

The Independent Packers' Fertilizing Co., Columbus, Ohio.

International Agricultural Corporation, Buffalo Fertilizer Works, Buffalo, N. Y. and Cincinnati, Ohio.

Nitrate Agencies Company, New York, N. Y. and Columbus, Ohio.

Piedmont-Mt. Airy Guano Co., Baltimore, Md.

The Smith Agricultural Chemical Co., Columbus, Ohio.

Virginia-Carolina Chemical Co., Cincinnati, Ohio.

DRIED BLOOD.

The American Agricultural Chemical Co., New York, N. Y. and Cleveland, Ohio.

Nitrate Agencies Company, New York, N. Y. and Columbus, Ohio.

Swift & Company, Chicago, Ill. and Cleveland, Ohio.

TANKAGE.

The American Agricultural Chemical Co., New York, N. Y. and Cleveland, Ohio.
American Reduction Company of Pittsburgh, Pittsburgh, Pa.
International Agricultural Corporation, Buffalo Fertilizer Works, Buffalo, N. Y.
and Cincinnati, Ohio.
Nitrate Agencies Company, New York, N. Y. and Columbus, Ohio.
J. L. and H. Stadler Rendering & Fertilizer Co., Cleveland, Ohio.
The F. C. Stedman Co., Athens, Ohio.
The Smith Agricultural Chemical Co., Columbus, Ohio.

DRIED MANURE.

(Sheep and Cattle.)

Natural Guano Company, Aurora, Ill.
The Pulverized Manure Co., Chicago, Ill.
Swift & Company, Chicago, Ill. and Cleveland, Ohio.

MATERIALS CONTAINING POTASH.**MURIATE OF POTASH.**

Associated Chemical Company, Hagerstown, Md.
The American Agricultural Chemical Co., New York, N. Y. and Cleveland, Ohio.
Armour Fertilizer Works, Chicago, Ill.
Darling & Company, Chicago, Ill.
German Kali Works (Inc.), New York, N. Y.
The Independent Packers' Fertilizing Co., Columbus, Ohio.
International Agricultural Corporation, Buffalo Fertilizer Works, Buffalo, N. Y.
and Cincinnati, Ohio.
The Marietta Bone & Phosphate Co., Marietta, Ohio.
Nitrate Agencies Company, New York, N. Y. and Columbus, Ohio.
The Ohio Standard Chemical Company, Toledo, Ohio.
Piedmont-Mt. Airy Guano Co., Baltimore, Md.
Swift & Company, Chicago, Ill. and Cleveland, Ohio.
The Smith Agricultural Chemical Co., Columbus, Ohio.
Virginia-Carolina Chemical Co., Cincinnati, Ohio.

SULPHATE OF POTASH.

The American Agricultural Chemical Co., New York, N. Y. and Cleveland, Ohio.
Darling & Company, Chicago, Ill.
German Kali Works (Inc.), New York, N. Y.
Nitrate Agencies Company, New York, N. Y. and Columbus, Ohio.
The Smith Agricultural Chemical Co., Columbus, Ohio.
Swift & Company, Chicago, Ill. and Cleveland, Ohio.
Virginia-Carolina Chemical Co., Cincinnati, Ohio.

KAINIT.

Armour Fertilizer Works, Chicago, Ill.
German Kali Works (Inc.), New York, N. Y.
The Ohio Standard Chemical Company, Toledo, Ohio.
Piedmont-Mt. Airy Guano Co., Baltimore, Md.

ASHES.

Swift & Company, Chicago, Ill. and Cleveland, Ohio.
William H. Teare & Co., Cleveland, Ohio.

MATERIALS CONTAINING PHOSPHORIC ACID.

RAW ROCK PHOSPHATE.

Central Phosphate Co., Mt. Pleasant, Tenn.
Federal Chemical Co. (Inc.), Columbia, Tenn.
Ruhm Phosphate Mining Co., Mt. Pleasant, Tenn.
Virginia-Carolina Chemical Co., Cincinnati, Ohio.

BASIC SLAG PHOSPHATE.

The Coe-Mortimer Company, New York, N. Y.

TWELVE IMPORTANT FACTS A FARMER SHOULD KNOW WHEN PURCHASING FERTILIZERS.

BY HENRY G. BELL.

Agronomist of the Middle West Soil Improvement Committee.

Modern farming is an industry based upon science. By applying scientific methods of investigation, the specialist and the farmer have been able to learn something about the supply and nature of plant food, and its availability for crop use during the growing season. They have also been able to learn much about the soil as to how it is influenced by drainage, tillage, cropping and the application of plant foods in different forms. All these influences have a very important bearing upon the productiveness of the soil. They all enter into the question of the profitability with which plant food can be applied to the soil. With these general principles in mind, the following twelve points concerning fertilizers, which the farmer should have in mind when purchasing this form of plant food, are herewith submitted.

1—WHAT FERTILIZERS ARE.

Fertilizers are natural PLANT FOODS, prepared according to definite formulas, under laboratory control.

2—INDICATION OF THE NEED OF FERTILIZERS.

- (a) Low and decreasing yields.
- (b) Spindly growth of stalk.
- (c) Inferiority of product—for instance.
 - (1) Small, pale, insipid fruit.
 - (2) Poorly filled kernels of wheat.
 - (3) Large ears of unsound corn.

3—SOIL CONDITIONS ESSENTIAL TO BEST RETURNS FROM FERTILIZERS, AND HOW TO OBTAIN THEM.

- (a) The soil must be free from standing water.
This is accomplished by a good drainage system.

(b) The soil should be supplied with an abundance of organic matter in order to give it proper body and moisture holding capacity.

This is accomplished by

- (1) Rotation of crops, wherein legume crops are grown periodically.
(2) Plowing under green manure.
(3) Applying strawy barn manure.
(c) The soil should be sweet in reaction. This reaction is gotten by good drainage and periodical applications of lime.

4—NATURE OF FARM SOILS.

The number and kind of crops taken from the land and the amount of manure applied to it, as well as the nature of the soil, should be taken into consideration.

NATURE OF SOILS.

Kind of soil.	Nitrogen.	Phosphoric Acid.	Potash.
Black Humus.	Fairly Abundant-----	Scarce -----	Scarce.
Sandy -----	Scarce -----	Scarce -----	Scarce.
Clay -----	Present in varying quantities -----	Present but largely in unavailable form-----	Present but largely in unavailable form.

5—NATURE AND REQUIREMENTS OF FARM CROPS.

The valuable parts of the various farm crops differ.

For instance—

The cereals are grown for their grain.

Hay crops are grown for their stalk production.

Potatoes and other root crops are grown for their root production.

The plant food ingredients, therefore, used by these various crops, speaking generally, are as follows:

	Nitrogen.	Phosphoric Acid.	Potash.
Cereals-----	Fair-----	Much-----	Fair-----
Grass-----	Much-----	Small-----	Much-----
Roots-----	Much-----	Much-----	Much-----

6—THE DUTIES OF PLANT FOOD INGREDIENTS.

The duties of the important plant food ingredients are as follows:

NITROGEN—This element influences the rate and amount of stalk or vegetative growth of the plant.

PHOSPHORIC ACID—This ingredient has to do with the prolificacy of the plant, and more especially with the time of maturity of the crop. An abundant supply of available phosphoric acid hastens the ripening of any crop.

POTASH—This ingredient influences the growth of the stalk. It has a direct bearing also upon the laying down of starch in the filling of the kernels, or growth of the tuber or root.

7—BEST CONDITIONS OF FERTILIZERS.

For best results, fertilizers should be in good mechanical condition. They should be uniformly mixed, finely ground, dry and drillable.

8—RELIABILITY.

In buying fertilizers, the farmer should see that his purchases are made through a reliable agent.

9—PROTECTION FOR THE FARMER.

The farmer should pay close attention to the results of the inspection and analysis made by state officials. These are issued periodically under the state law, and contain reliable information.

10—THE EFFECT OF FERTILIZERS ON CROPS.

The judicious use of suitable fertilizers not only profitably increases the yield but improves the quality as well. When used in seeding clover, fertilizers nearly always insure a catch.

Not all of the fertilizer is used up by the crop to which it is applied. If the fertilizer is applied systematically, it adds fertility to the natural store of the soil, and shows its effects in succeeding crops.

11—THE QUANTITY TO USE.

This question depends upon the character of the soil and the previous cropping of it, as well as upon the demands which the farmer makes of the field. The question resolves itself into a business proposition. The yield and quality of the resulting crops must guide the farmer as to the amount he can profitably use upon his fields.

12—PROFIT FROM JUDICIOUS USE OF FERTILIZERS.

The Ohio Experiment Station, after 10 years' experiments of fertilizers on a rotation of corn, oats, wheat and hay (Circular No. 120)

find the liberal application of suitable, complete fertilizers at an average cost for fertilizers of \$19.78 per acre, per rotation, gave an average *gross* return of \$32.84 per acre per rotation, or an average *net* profit of \$13.06 per acre per rotation.

SOIL ANALYSIS NOT A SUFFICIENT GUIDE TO THE USE OF FERTILIZERS.

BY CHAS. E. THORNE,

Director, Ohio Experiment Station, Wooster, Ohio.

Sand is pulverized rock, and clay is merely sand, reduced to an impalpable powder. The soil consists of sand and clay, mixed with the remains of the plant and animal life which have grown upon it during past ages, the rocks from which the sand and clay were derived constituting the original storehouse from which have been drawn the phosphorus, potassium and lime which our crops require for their growth.

WHAT MUST HAPPEN TO ELEMENTS BEFORE PLANTS CAN MAKE USE OF THEM?

These elements must be dissolved in water before the plant can make use of them, for it has no stomach in which to store solid food, there to be dissolved by its own secretions. But if they had been easily dissolved they would have been washed out of the land and carried to the sea ages before man came to inhabit the earth; hence they have been stored in the particles of sand and clay, from which they are given up, little by little, under the influence of each season's sunshine and rain. It is not, therefore, the total store of plant food in a soil which determines its productiveness, but the amount of that store which may be made available from day to day during each season's growth.

To illustrate: Orthoclase feldspar contains nearly 14 per cent. of potassium, or nearly three times as much as wood ashes, but this potassium is held so firmly that feldspar has never been made a source of the potash used in human industry, urgent as is the demand for a cheaper source of it. Clay is largely derived from feldspar, and we find 18 to 20 tons or more of potassium per acre in the upper foot of most Ohio soils, yet at the Germantown Test Farm of the Ohio Experiment Station the addition of 40 pounds of potash per acre, at a cost of \$2.00, to a dressing of acid phosphate has increased the value of the yield by \$4.62 over that produced by the acid phosphate alone, as an eight-year average in a three-year rotation of corn, wheat and clover.

DOES THE PLANT DISCOVER LACK OF FOOD BEFORE IT IS REVEALED BY
CHEMICAL ANALYSIS?

There are about 2,000,000 pounds of earth in the upper seven inches of an acre of soil, so that 40 pounds of material distributed through the plowed surface of one acre would give one pound to 50,000 pounds, or 25 tons, of soil. To detect so small an amount requires chemical manipulation of the most accurate description; and while chemical methods are now able to closely approach such accuracy as would be required in this case, yet, after all, the plant has methods of separating its food from the minerals of the soil, the secret of which the chemist has not yet fully uncovered, so that the most the chemist can do for us in this matter is to detect the larger differences which are found in extreme cases. In other words, the plant discovers a lack of food long before it is revealed by chemical analysis.

DOES THE EXPERIMENT STATION DETERMINE FERTILIZER REQUIREMENTS OF
SOIL BY CHEMICAL ANALYSIS?

For this reason the Experiment Station does not attempt to determine the fertilizer requirements of a soil by chemical analysis. However, the knowledge of the different soils of the state which the station has obtained through its soil survey and through its field experiments, located as they are on soils of different types throughout the state, enables it to offer advice which may be followed in the assurance that it will lead to a profitable use of fertilizing materials.

In order that it may offer such advice intelligently the station should have information respecting the locality of the particular soil, its condition as to drainage, the original forest growth, whether the land is sandy or gravelly, black or light colored, and the system of cropping and of manuring or fertilizing to which it has been subjected.

COMPARISON OF CARRIERS OF PHOSPHORUS IN
FERTILIZERS.

BY CHAS. E. THORNE,

Director, Ohio Experiment Station, Wooster, Ohio.

Three experiments have been in progress at the Ohio Experiment Station since 1894 and 1895 in the comparison of different carriers of phosphorus in fertilizers, namely: In the five-year rotations of corn, oats, wheat, clover and timothy, begun at Wooster in 1894 and at

Strongsville in 1895, and in the three-year rotation of potatoes, wheat and clover, begun at Wooster in 1894. A report of progress in these experiments was published in 1909 as Circular 93. In the following tables the work is brought down to 1912. In these experiments the different plots receive the same total quantities of nitrogen, available phosphorus, and potassium, the nitrogen being carried in nitrate of soda, except that allowance is made for the nitrogen in the bonemeal, and the potassium being carried in the muriate of potash.

AVERAGE ANNUAL YIELDS PER ACRE IN COMPARISON OF DIFFERENT CARRIERS OF PHOSPHORUS.

CEREAL ROTATIONS.

Phosphorous carrier.	Corn, Bus.	Oats, Bus.	Wheat, Bus.	Clover, Tons.	Timothy, Tons.
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WOOSTER—19 YEAR AVERAGE.

Acid phosphate -----	47.47	50.09	26.22	1.66	1.79
Bonemeal -----	45.47	46.90	22.90	1.72	1.83
Dissolved boneblack -----	47.31	49.14	25.34	1.52	1.74
Basic slag -----	47.77	47.35	23.93	1.64	1.92

STRONGSVILLE—18 YEAR AVERAGE.

Acid phosphate -----	38.50	50.52	18.45	1.39	1.48
Bonemeal -----	35.97	48.66	18.85	1.46	1.38
Dissolved boneblack -----	34.70	48.61	17.70	1.30	1.19
Basic slag -----	36.46	47.00	18.69	1.34	1.30

POTATOES-WHEAT-CLOVER ROTATION.

19 YEAR AVERAGE.

	Potatoes, Bus.	Wheat, Bus.	Clover, Tons.
Acid phosphate -----	172.11	37.44	2.15
Bonemeal -----	164.87	34.22	2.12
Dissolved boneblack -----	169.34	35.44	2.04
Basic slag -----	170.35	35.99	2.28

If we value the crops produced in these experiments at half a dollar per bushel for corn, one-third of a dollar for oats, eighty cents for wheat, half a dollar for potatoes and eight dollars per ton for hay, in order approximately to reduce them to a common denominator, we shall have the following as the comparative average annual values of the crops produced by each treatment:

Phosphorus carrier.	Wooster cereal rotation.	Strongsville cereal rotation.	Wooster potato rotation.
Acide phosphate -----	\$17 70	\$14 76	\$44 40
Bonemeal -----	17 02	14 40	42 26
Dissolved boneblack -----	17 28	13 53	43 13
Basic slag -----	17 46	14 00	44 07

These experiments have been made on acid soils, where basic slag should show its greatest relative effectiveness. The differences are not sufficiently great to justify the assertion that basic slag as a carrier of phosphorus possesses any superiority over common acid phosphate, pound for pound of available phosphorus contained.

That phosphorus is the first element usually found to be deficient in pasture lands follows upon the fact that the animals grazing upon such lands have appropriated the phosphorus of the grass for the purpose of building up their skeletons, whereas they carry off comparatively small quantities of nitrogen and potassium.

THE PHOSPHORIC ACID IN PHOSPHATE SLAG.

BY N. W. LORD.

The material known as basic slag or Thomas Phosphate Powder or basic slag phosphate is a by-product obtained in the manufacture of certain kinds of material. It contains a large percentage of phosphoric acid and is a valuable fertilizer.

The phosphoric acid in basic slag is in a different kind of combination from that in rock phosphate or in any of the acid phosphates obtained from the rock phosphate by treatment with acid. These Thomas Phosphates contain a large excess of lime instead of free acid. It has been shown by experiment that nearly all of the phosphoric acid in these basic slags is available for the plant in the course of time when put into

the soil, but owing to the peculiar character of the combinations the phosphoric acid is not dissolved by the ammonium citrate solution used in the official method of determining the availability of phosphoric acid in the ordinary fertilizers on the market. For this reason the phosphate slag is graded by its total content of phosphoric acid and unless mixed with other phosphatic materials does not have its phosphoric acid classified as available and insoluble, the reason for this being that while the phosphoric acid is available, its availability is different and cannot be expressed in the same standard.

In purchasing basic slag the farmer is protected if he obtains the percentage of total phosphoric acid for which he contracts, as he is buying a different material from the ordinary acid fertilizer, and one in which all the phosphoric acid has a certain availability. The only requirement the farmer should insist upon other than the total phosphoric acid is that the material be very finely ground.

It is not deemed advisable to use the term "available phosphoric acid" for results obtained by a special method (The Wagner Method), as such results are not comparable with the available phosphoric acid as determined by the ordinary official method and the use of the term is therefore misleading.

IMPORTANT QUESTIONS AND ANSWERS RELATIVE TO THE USE OF MANURES AND FERTILIZERS.

BY CHAS. E. THORNE.

Director, Ohio Experiment Station, Wooster, Ohio.

1. WHAT IS THE AVERAGE COMPOSITION OF A TON OF MANURE?

Ans. Approximate average composition of manures.

	Pounds per ton.		
	Nitrogen.	Phos. acid.	Potash.
*Horse manure -----	9—10	4—7	10—18
Cow manure -----	10	5—7	7—10
†Steer manure (fattening)-----	12—18	6—7	7—8
Sheep manure -----	30	5	20

*Roberts' "The Fertility of the Land."

†Ohio Experiment Station Bulletin 184, p. 302. See also Ohio Experiment Station Bulletin 134, p. 93.

2. IS MANURE A WELL-BALANCED FERTILIZER; IF NOT, WHY NOT?

Ans. No, because when produced by growing or milk producing animals a part of the phosphorus of the food stuffs will be stored in the bones and nerve tissues of the animal or carried away in the milk, thus leaving the manure naturally deficient in this element.

3. WHAT ARE THE LOSSES OF MANURE IN THE STABLE?

Ans. If the stable floor is of plank or earth, most, or all of the liquid will be lost, and this part may contain more than half the total value of the manure. If the manure is allowed to heat in the stable it will lose ammonia to the extent of practically all that contained, and the ammonia constitutes about two-thirds the total value of manure. The Ohio experiments have shown that the loss in manures from steers fed on an earth floor, when there was no heating, may amount to one per cent. per month. (See Bulletin 183, p. 203, and Bulletin 246, p. 728.)

4. WHAT ARE THE LOSSES OF MANURE IN THE BARNYARD?

Ans. In three months untreated manure exposed in an open barnyard suffered the following losses:

Total organic matter.....	38 per cent.
Total ash	17 " "
Total phosphorus	23 " "
Water soluble phosphorus.....	29 " "
Total potassium	57 " "
Water soluble potassium.....	59 " "
Total nitrogen	27 " "
Water soluble nitrogen.....	67 " "

(See Bulletin 183, p. 205.)

Field experiments, continued for 15 years, show that such exposure has caused a loss of at least one-fourth the crop-producing value of the manure. (See Ohio Experiment Station Circular 131, p. 34, and Bulletin 246, p. 736.)

5. WHAT ARE THE LOSSES OF MANURE IN THE FIELD?

Ans. If manure is left in piles in the field the organic matter, with its nitrogen, will gradually be converted into gas and escape into the air. As soon as manure is piled this operation begins, and it goes on whenever the temperature within the heap is above the freezing point. In addition to this loss, the fertilizing constituents of such heaps are washed into the soil below with every rain. If manure be at once

spread upon the field it will lose only the ammonia that may have already collected in the interstices of the moist manure. As soon as it becomes dry this loss ceases, and the rains which follow will wash the soluble fertilizing constituents directly into the soil where they are needed. There may be occasional losses by the manure being washed bodily down steep hillsides in heavy rains or melting snows, but the losses from this source under existing Ohio practice are insignificant as compared with those which take place in the stable and barnyard.

6. WHAT IS THE QUANTITY OF MANURE PER ANIMAL?

Ans. The daily production of manure is approximately as follows per 1,000 pounds live weight:

Horses -----	50 to 60 pounds
Cows -----	60 to 70 pounds
Fattening steers -----	40 to 50 pounds
Fattening lambs -----	33 pounds

These estimates include bedding at the rate of about 7 pounds of straw per 1,000 pound animal per day. (*Roberts' Fertility of the Land*, and Ohio Exp. Sta. Bulletin 183 and 184.)

7. WHAT IS THE DIFFERENCE BETWEEN "AMMONIA" AND NITROGEN?

Ans. Ammonia is a chemical compound made up of 14 parts by weight of nitrogen and 3 parts of hydrogen, or about 82 per cent. nitrogen and 18 per cent. hydrogen.

8. WHAT IS THE DIFFERENCE BETWEEN "PHOSPHORIC ACID" AND PHOSPHORUS?

Ans. Phosphoric acid, as the term is used in fertilizer terminology, is a compound containing 62 parts by weight of phosphorus combined with 80 parts of oxygen, or about 44 per cent. phosphorus and 56 per cent. oxygen.

9. WHAT IS THE DIFFERENCE BETWEEN "POTASH" AND POTASSIUM?

Ans. Potash is a combination of the elements potassium and oxygen, containing 78 parts by weight of the former and 16 of the latter, or about 83 per cent. potassium and 17 per cent. oxygen.

10. WHAT IS THE DIFFERENCE BETWEEN LIME AND CALCIUM?

Ans. Lime is a combination of calcium and oxygen, containing 40 parts by weight of the former and 16 parts of the latter, or about 71½ per cent. calcium and 28½ per cent. oxygen.

11. WHAT IS THE DIFFERENCE BETWEEN QUICKLIME AND HYDRATED LIME?

Ans. Quicklime is freshly burnt lime, and if pure, would have the above composition.

When quicklime is exposed to moisture the lime absorbs about 32 per cent. of its weight of water, the two uniting with great energy and the evolution of heat, and if just the proper quantity of water is used a fine, dry powder results which is known as hydrated lime. The percentage composition of hydrated lime is approximately 54 per cent. calcium, 43 per cent. oxygen and 3 per cent. hydrogen.

12. WHAT IS THE DIFFERENCE BETWEEN QUICKLIME AND CARBONATE OF LIME?

Ans. If quicklime be exposed for a long time to the air it not only combines with water but also with carbon dioxide (carbonic acid), becoming carbonate of lime, which is the condition in which it is found in nature as limestone. The percentage composition of pure carbonate of lime is 56 per cent. lime and 44 per cent. carbon dioxide, or 40 per cent. calcium, 12 per cent. carbon and 48 per cent. oxygen. The number of pounds of calcium in a ton of each of these three carriers is, therefore, as follows:

In one tone of quicklime.....	1,430
In one tone of hydrated lime.....	1,080
In one ton of carbonate of lime.....	800

13. WHAT IS THE MEANING OF "NITRATE"?

Ans. A nitrate is a salt formed by the combination of nitric acid with a basic element, such as sodium or potassium, giving nitrate of soda or sodium nitrate, nitrate of potash or potassium nitrate, etc.

14. WHAT IS THE MEANING OF "PHOSPHATE"?

Ans. A phosphate is a similar combination of phosphoric acid with a base, such as phosphate of lime.

15. WHAT IS THE MEANING OF "ACID PHOSPHATE"?

Ans. Acid phosphate is the term used to designate the substance formed by treating the phosphatic rock, found in Tennessee and other southern states, with sulphuric acid, in order to make the phosphorus of this rock (which is phosphate of lime) available to plants, it being insoluble in water in its natural condition. In this treatment approximately equal weights of the ground rock and sulphuric acid are mixed together. Chemical union takes place and the product is acid phosphate.

16. WHAT IS THE MEANING OF "SUPERPHOSPHATE"?

Ans. Superphosphate is the term originally used in England to designate the composition now known as acid phosphate.

17. WHAT IS THE MEANING OF "SULPHATE"?

Ans. A sulphate is the combination of sulphuric acid with a base such as sodium, calcium or potassium, giving the sulphates of soda, lime and potash.

18. WHAT IS THE MEANING OF "MURIATE"?

Ans. The acid now known as hydrochloric (because it is a compound of hydrogen and chlorine and contains no oxygen, as do sulphuric and phosphoric acids) was originally called muriatic acid, and a muriate is the combination of this acid with a base. The muriate of potash is the principal example of this name. Common salt might be called muriate of soda. In the union of hydrochloric acid with these bases the hydrogen is liberated so that the resulting salt contains only two elements, potassium or sodium combined with chlorine. As the term potash is properly applied only to the combination of potassium with oxygen, and as muriate of potash contains no oxygen, the name is a misnomer. The proper name is potassium chloride for the potassium compound and sodium chloride for common salt.

19. WHAT ARE THE USUAL CONSTITUENTS OF FERTILIZERS?

Ans. The basal constituent of ordinary fertilizers is a carrier of phosphorus, either the phosphate of lime found as a rock in south Carolina, Florida and Tennessee, or the bones and other wastes of slaughterhouses. To this base, materials are added carrying nitrogen or potassium, one or both. The usual carrier of nitrogen is slaughterhouse waste, though peat is used in some low-grade fertilizers. Practically the only carriers of potassium in use for this purpose are the muriate or sulphate of potash or a crude salt called kainit, the world's supply for both of which is drawn from mines at Strassfurt, Germany.

20. WHAT IS THE FUNCTION OF "FILLER" IN FERTILIZERS?

Ans. There is no place in a properly made fertilizer for any "filler." Acid phosphate and bone meal are dry powders, ready for use alone or for mixing with other materials. Muriate of potash resembles common salt in its appearance and texture, and may be used alone or in mixtures, just as salt might be. Tankage, which is the ordinary carrier of nitrogen, used in fertilizers, is made by rendering the waste scraps of

meat and tendon of the slaughterhouses to extract the fat and drying and grinding the residue. It is made in various grades and is sold on the basis of the "ammonia" and "bone phosphate" contained. A common grade is called "6 and 35," meaning 6 per cent. "ammonia" and 35 per cent. "bone phosphate." As bone phosphate is about 46 per cent. phosphoric acid and 54 per cent. lime, this grade would carry about 16 per cent. phosphoric acid. Let us now compound a 1-8-1 fertilizer, or a fertilizer carrying in each ton 1 per cent. or 20 pounds of "ammonia," 8 per cent. or 160 pounds of "phosphoric acid," and 1 per cent. or 20 pounds of "potash." The composition of such a fertilizer is shown below.

	<i>Ammonia.</i>	<i>Phos. Acid.</i>	<i>Potash.</i>
	<i>Lbs.</i>	<i>Lbs.</i>	<i>Lbs.</i>
Constituents in 1 ton.....	20	160	20
Materials required:			
350 pounds 6 & 35 tankage.....	21	46	--
820 pounds 14% acid phosphate.....	--	114	--
40 pounds muriate of potash.....	--	--	20
-----	-----	-----	-----
1,210 pounds total.....	21	160	20

Twelve hundred and ten pounds of these mixed materials would, therefore, contain sufficient of the essential constituents to make a ton of fertilizer of the required analysis, and in order to make the farmer think he is getting his money's worth the total weight is made up by adding any refuse that may be convenient. This may be accomplished by using a low grade of phosphate rock for the acid phosphate or by "filling" with ground limestone or with peat. All these methods are practiced. For example, a dried peat may contain 3 per cent. "ammonia" and 1/3 of 1 per cent. "phosphoric acid." Such a "filler" may be used as below:

	<i>Ammonia.</i>	<i>Phos. Acid.</i>	<i>Potash.</i>
	<i>Lbs.</i>	<i>Lbs.</i>	<i>Lbs.</i>
810 pounds peat.....	24	2	--
1,150 pounds acid phosphate.....	--	161	--
40 pounds muriate of potash.....	--	--	20
-----	-----	-----	-----
2,000 pounds total.....	24	163	20

If the dry peat cost \$2 per ton, the acid phosphate \$16 and the muriate of potash \$46, the cost of the materials required to make a ton of the above compound would be \$10.93.

Ohio peat is being used in large quantities for mixing fertilizers.

21. HOW TO TELL WHEN LIME IS NEEDED.

The first indication of lime hunger in the soil is the behavior of the clover crop. The seed sown in the spring takes root and apparently

a perfect stand is obtained. At harvest the land is fairly evenly covered with young clover, but there are patches of greater or less extent, in which the plant seems unthrifty. As the season progresses these patches increase in size and the contrast becomes more apparent. By the following spring these patches are bare of clover, and weeds of various kinds, especially horse sorrel, have taken its place.

The unthriftiness of the clover usually makes its first appearance on the higher and drier lands, and especially on those which have been long in cultivation with scanty manuring. It is also more apparent in dry seasons; in fact, in a season of abundant rainfall throughout the summer it may not be observed, but the general tendency is toward an increasing difficulty in securing satisfactory crops of clover.

It should not be confused with complete destruction of the young plants by late spring frosts, nor with a disease of clover which causes a wilting and browning of the leaves and the appearance of black spots on the stems.

When these conditions are observed on an acid soil, as indicated by the litmus test, it may safely be assumed that lime is needed.

22. NAME THE CROPS MOST BENEFITED BY LIME, AND WHY.

Ans. Clover first, and corn next, because a crop of clover contains from four to ten times as much lime as either of the cereal crops, and a crop of corn nearly three times as much as one of wheat, and because an alkaline base is essential to the existence of the soil organisms through whose agency nitrogen is fixed in a form available to higher plants. In the case of clover these organisms operate on the free nitrogen of the air in the upper layer of soil and form the nodules on the clover roots, and in the case of corn similar organisms convert the nitrogen of the dead roots and other organic matter of the soil into available form. Lime is both the cheapest and most efficient base for this purpose.

23. NAME THE REASON WHY PHOSPHORUS IS USUALLY THE FIRST ELEMENT NEEDED.

In the maturing of the crop about three-fourths of the total phosphorus of the plant is transferred to the grain, while a like portion of the potassium is retained in the stem and leaves. Whether the grain be sold or fed on the farm the result is that most of the phosphorus is carried away, either in the grain itself or in the bones and nerve tissues of the animals fed on it, or in milk. The potassium, however, remains either in the unused straw and stalks or in the manure, since comparatively little of this element is retained in the animal body.

24. NAME CONDITIONS UNDER WHICH POTASSIUM IS LIKELY TO BE NEEDED.

When straw and hay as well as grain are sold off the farm the time will come when potassium, as well as phosphorus, must be restored.

25. NAME CONDITIONS UNDER WHICH NITROGEN IS LIKELY TO BE NEEDED.

Nitrogen, like phosphorus, is stored chiefly in the grain, and unless the system of agriculture be such as to restore this element by the frequent growing of leguminous crops and also by the return to the soil of some manure, the time will come when nitrogen also must be purchased. The Ohio Station's experiments indicate that the growing of clover every third year will not maintain the nitrogen supply if the hay crop be removed from the land. (Circular 79, p. 16.)

THE MANUFACTURE AND MARKETING OF FERTILIZERS.

BY J. T. WELCH,

Manager, Independent Packers' Fertilizing Co., Columbus, Ohio.

Farmers, as a rule, have little conception of the manufacture of fertilizers, or the magnitude of the business. The limited space that I am allotted for this article will not permit me to go into detail, and I must therefore treat the subject in a general way.

A great deal of skill is required in the proper compounding and mixing of fertilizers. Under the close scrutiny of state supervision and inspection, and the keen competition in the business, the days of haphazard manufacturing of fertilizers are over. Every well regulated fertilizer factory has its own laboratory and chemist, and the different materials are analyzed as received; samples from each day's manufacture are carefully drawn and also analyzed, thus giving the manufacturer a check on his materials before and after they are made up, minimizing the possibility of an error.

ACID PHOSPHATE.

Acid phosphate is the base, and one of the most important elements in the manufacture of fertilizers. It is made by combining about equal parts of sulphuric acid and phosphate rock.

SULPHURIC ACID.

Sulphuric acid is the first step in the manufacture of fertilizers. It is produced largely from pyrites ore, mined principally in Spain, and contains from 48 to 52 per cent. of sulphur. This ore is roasted in furnaces, and the gases resulting therefrom are condensed in leaden chambers by steam or water sprays, forming sulphuric acid. This process is continuous, and the fires in the furnaces are never extinguished, except when repairs are necessary.

From the chambers the acid is pumped to a storage tank and applied to phosphate rock, which liberates the phosphorus and makes it available for plant food. The phosphate rock is reduced to a powder by powerful grinding mills, so that practically all of it will pass a screen of 3,600 meshes to the square inch. A large revolving mixing pan is the receptacle used for mixing the rock and acid. This pan contains two sets of plows, which revolve within the pan at the same time the pan is moving in a circle. After the rock and acid have combined, the mixture is dumped into dens, where it stands until it has "set," which usually takes about twelve hours. From the den it is removed by tram cars to a large storage room for thorough curing. This mixture is known to the trade as super, or acid phosphate.

ALKALINE GOODS.

Alkaline, or what is commonly known as potash and acid goods, are produced by the combinations of required weights of acid phosphate and potash necessary to obtain a given formula. This combination is passed through special mixing machinery until the ingredients are so intimately mixed, that a sample—say a pound—may be taken from several portions of the mixture, and upon analysis will show the correct proportions of the materials used. From the mixing machine the finished goods are carried to certain parts of the building and dumped into dens set apart for the respective grades.

COMPLETE FERTILIZERS.

The same process is exercised in the manufacture of complete fertilizers, containing ammonia, phosphoric acid and potash, as in alkaline goods, the ammonia or nitrogen being derived from blood, tankage, sulphate of ammonia, nitrate of soda, cyanamid and various other nitrogenous materials.

This completes the manufactured goods. They are allowed to remain in the dens sixty or ninety days, and when the time arrives for shipment, the goods are in dry mechanical condition. As the orders are received, they are passed to the factory, and the grades ordered are selected from the respective piles and dumped into an elevator, over a screen, through the hopper and into the bags.

MECHANICAL CONDITION.

Mechanical condition is one of the most essential features in the manufacture of fertilizers. The farmer must have his goods in condition that they will drill with ease, and the manufacturer who has any regard for his trade must prepare and cure his goods, so that they may be used without difficulty.

When it is taken into consideration that even the application of 1,000 pounds of commercial fertilizer to the acre, only gives a pound to every ton of soil, it should be a convincing argument that the different materials must be thoroughly mixed, in order to obtain maximum results. Every particle of fertilizer must contain its given proportion of each material. For instance, the above application would be at the rate of an ounce to $2\frac{1}{2}$ square feet of soil, $6\frac{2}{3}$ inches deep. If the nitrogen in the mixture happens to be in one lump, one plant would get it all, and the next two nothing. This would mean that one-third of the plants would get too much nitrogen, while the other two-thirds would be stunted. This illustration would apply to each material used.

THE "A" PREFIX.

A few manufacturers still cling to the "A" prefix in the State Bulletin, which represents "Animal Matter." A careful perusal of the Bulletin, however, will show that this guarantee is seldom if ever maintained. The impression is given that the available as well as the insoluble phosphoric acid is derived wholly from animal matter. As a matter of fact, all manufacturers use practically the same materials for the same formulas, and any authority on agriculture will tell you that phosphoric acid is just as valuable from phosphate rock, as from animal matter. A clear statement of facts by the manufacturer and salesman will go a long way towards overcoming the prejudices and suspicions of a few, and make them friends and advocates of the use of fertilizers.

STOP—LOOK—LISTEN.

The 1912 report shows that out of 695 brands analyzed in 1911, only 23 were below the guarantee. This is truly remarkable considering the difficulties that the fertilizer manufacturer has to contend with. In the compounding of fertilizer formulas, there is always liability to error in the weights of ingredients, being sometimes too much of one or too little of another, or the weights may be correct, but taken out of turn from the wrong pile. It is possible, and quite probable, that the 23 samples that show a deficiency, were taken from sacks in which these errors occurred, but it should not be assumed that such inspections represent the general run, or any considerable portion of the shipments of that formula.

It is not to be supposed that any manufacturer will purposely run his formulas below his guarantee, when detection is practically assured; nor on the other hand, will he purposely run them greatly enough in excess to take away his profit, nor yet that he would not soon detect such carelessness in his factory that would tend to injure him in either direction. Every reputable manufacturer so makes his formulas that a given excess above the guarantee is knowingly and deliberately made, for the purpose of meeting any variations there may be in the work of different chemists, by reason of their methods of determination, differences in the working of their scales, reagents, or other apparatus or chemicals unfamiliar to the layman, and these allowances being made, the analysis of samples properly drawn will sustain the guarantee and average slightly in excess of it.

THE SALESMAN.

Great improvement has been made in the ranks of fertilizer salesmen within the past few years. The salesman of yesterday, who sold fertilizers under high sounding names, without regard to analysis, simply to accomplish a sale, has been supplanted by the salesman of today, who has a knowledge of chemistry, the effect of different formulas on different soils, and is able to advise the farmers the particular grade that his soil and crop requires. He recommends the largest possible use of farm manures, leguminous crops, proper rotation, thorough tillage, drainage and liming the soil, fertilizers being only one of the important links in the chain of successful farming.

CO-OPERATION.

The men now in charge of National and State Departments of Agriculture, have risen above the ranks of the politicians who formerly controlled these departments, and are lending their aid and assistance to the fertilizer manufacturer in furnishing the farmer with properly balanced plant food for producing maximum crops.

The recent annual meeting of the National Fertilizer Association was addressed by representatives from the U. S. and heads of the State Departments of Agriculture. These addresses were all along the line of proper and judicious use of commercial fertilizers. Co-operation and better understanding between the Departments of Agriculture and the fertilizer manufacturer is bound to inure to the benefit of the farmer.

WORK OF THE FERTILIZER MANUFACTURER.

The fertilizer manufacturer is doing considerable research work, and is constantly conducting experiments for the improvement and betterment of the business. He scours the world for fertilizer materials; he

converts the formerly waste materials of the packing houses, the cities and seas into plant food; he catches the nitrogen from the air; he mines the potash in Germany, nitrate of soda in South America and phosphate rock in Tennessee, South Carolina and Florida. He assembles these materials at his factories at convenient distributing points over the country, throughout the year, and when the farmer is ready to plant his crop, the 125 pound sack of fertilizer is on hand, ready for use.

THE NITROGEN OF THE FERTILIZER SACK.

BY CHAS. E. THORNE,

Director, Ohio Experiment Station, Wooster, Ohio.

Three principal carriers of nitrogen are employed for the fertilization of the soil, namely: (1) Nitrates, a class hitherto represented by nitrate of soda, but which has recently been re-enforced by nitrate of lime, cyanamid, and similar products formed by the combination of the free nitrogen and oxygen of the atmosphere in the electric furnace; (2) Ammonia salts, represented by sulphate of ammonia, and (3) organic nitrogen, including all forms of animal and vegetable refuse containing nitrogen, such as bone meal, dried blood, tankage and other slaughter-house products, the various oilmeals, dried muck or peat, etc.

PLANT FOOD MUST BE DISSOLVED IN WATER.

The food of the plant must be dissolved in water before it can serve its purpose, for no solid substance can pass through the cell walls of living tissue, and the plant has no means of taking its food into an internal reservoir, and there dissolving it as does the animal. Consequently those carriers of nitrogen which enter into solution most readily are found most effective, and these include, first, such salts as nitrate of soda and sulphate of ammonia, and second, the more easily soluble animal and vegetable carriers, such as dried blood and the oilmeals, substances which decay quickly and thus become soluble.

When applied to the soil in soluble form, however, the nitrogen must be used at once, else it will be carried away in the drainage waters; hence the provision of Nature that the great store of organic nitrogen in the soil—an acre of ordinary soil containing from one ton to several tons of nitrogen in the upper foot, and an acre of muck or peat ten to twelve tons or more—shall be held in a practically insoluble form, from which it is slowly made available by the action of the soil bacteria, which convert it first into ammonia and then change this ammonia into the nitrate form.

INERT PLANT FOOD.

We tan the skins of animals in order to preserve them from decay, and the principle which gives them this property is derived from bark. In peat bogs we find a similar principle at work, and the vegetable debris which constitutes these bogs, although rich in nitrogen, yet decays so slowly that it is practically worthless as a source of fertilizer nitrogen until so treated as to convert it into soluble form. A ton of dried peat may carry 40 to 50 pounds of nitrogen, and if this nitrogen is sold at the price which is asked for the nitrogen of the average fertilizer sack—20 cents or more per pound—the purchaser will pay a high price for something of very doubtful value. And what is true of peat is especially true of leather meal, wool waste, hair, etc., materials which in their untreated condition decay with extreme slowness, and upon which the effect of treatment has not yet been thoroughly investigated.

COMPARISON OF SOME EFFECTIVE CARRIERS OF NITROGEN.

As showing the wide variation in effectiveness between nitrate of soda and some other carriers of nitrogen I give below the results of a comparison extending over 12 years on the acid soil of this Station, between crops grown on limed and unlimed land, the fertilizers carrying the same quantities of phosphorus and potassium in every case and in the same carriers of acid phosphate and muriate of potash, except where tankage is used as the nitrogen carrier, in which case allowance is made for the phosphorus carried in the nitrogen. The total quantity of nitrogen is the same in each case:

Nitrogen Carrier	Limed Land.		Unlimed Land.	
	Value of Crop.	Increase for Nitrogen.	Value of Crop.	Increase for Nitrogen.
No nitrogen	\$17 60	-----	\$15 34	-----
Nitrate of soda.....	20 96	\$3 36	17 59	\$2 25
Sulphate of ammonia.....	20 97	3 37	16 01	67
Dried blood	20 12	2 52	16 13	79
Linseed oilmeal	20 15	2 55	16 45	1 11
Tankage	19 64	2 04	18 26	2 92

The table shows that nitrate of soda and sulphate of ammonia have been equally effective on the limed land, and both have been decidedly superior to any other of the carriers of nitrogen used.

On the unlimed land the fertilizer carrying its nitrogen in tankage has been the most effective, but this has apparently been due to the fact that the larger part of the phosphorus in this fertilizer has also been carried in the tankage, whereas it has been given in acid phosphate in the other cases. The effect of acid phosphate on this soil is to increase its acidity, but this effect is fully overcome by liming.

SLAUGHTERHOUSE NITROGEN.

The various slaughterhouse materials include dried blood, tankage, which is the residue left when the grease is extracted from scraps of meat—what is known to the farm housewife as “cracklings”—and which is dried and ground into meal; bonemeal in various forms, from that ground raw to that from which the nitrogenous matter has largely been extracted by steaming; hoof meal and corn meal. These materials vary in composition, from dried blood, containing from 12 to 13 per cent. nitrogen with a trace of phosphorus, to a steamed bone meal, containing less than one per cent. nitrogen with 25 to 30 per cent. phosphoric acid. The tankages run from as high as “10 and 10,” meaning 10 per cent. “ammonia” and 10 per cent. “bone phosphate” (the compound of phosphorus and lime found in bones, and consisting of about 44 per cent. phosphoric acid and 56 per cent. of lime) to “9 and 20,” “8 and 20,” “7 and 30,” “6 and 35,” etc. Raw bone meal contains 4 to 5 per cent. “ammonia” with 20 to 24 per cent. “phosphoric acid” (or 45 to 55 per cent. “bone phosphate”) while steamed bone meal runs from 1 per cent. or less to $2\frac{1}{2}$ per cent. ammonia, and 25 to 30 per cent. phosphoric acid. These materials are collectively called “ammoniates” in the fertilizer trade, a term, however, which may extend to other substances containing nitrogen.

Dried blood, the tankages and bone meals are useful carriers of nitrogen, although less effective than nitrate of soda and sulphate of ammonia, which are easily soluble salts, ready for immediate work.

When the more insoluble nitrogenous materials are used, such as horn and hoof meals, wool and leather waste, peat, etc., it is necessary to “wet mix” them with sulphuric acid in order to render their nitrogen available. The present fertilizer law of Ohio requires that if these materials are used that fact must be plainly stated in the claimed analysis.

No improvement can be made in nitrate of soda, sulphate of ammonia, and the new and probably equally effective carriers of nitrogen—nitrate of lime and cyanamid—by “wet mixing” and the claim that a fertilizer has been mixed in this manner is virtual admission that nitrogen carriers of inferior grade have been used in its manufacture.

NITROGEN OF THE SOIL.

All soils contain more or less nitrogen, carried in decaying roots and animal remains. When this decay has progressed to a certain point a black substance called humus is formed, which serves as a reservoir or storage battery, in which the nitrogen is held in a comparatively stable form. In order that the nitrogen of humus may become available it must be subjected to the action of air and of the organisms working in the soil which produce the effect called nitrification. That humus may be a very inert carrier of nitrogen is shown in the fact that soils may show by analysis a ton or more of nitrogen per acre in the upper 12 inches, and yet be so starved for nitrogen that a few pounds of this element carried in nitrate of soda may make a difference of several bushels per acre in the crop. For example, in the five-year rotation at the Ohio Experiment Station, Plot 8, receiving phosphorus and potassium but not nitrogen, has given a twenty-year average of 19.7 bushels of wheat per acre, while Plot 11, receiving the same quantities of phosphorus and potassium, in the same carriers, with 25 pounds of nitrogen added in nitrate of soda, has yielded an average of 26.9 bushels for the same period; yet there is a ton of humus nitrogen per acre in the upper 6 inches of this land. Farmers, therefore, should not be deceived by a fertilizer agent's claim that his particular brand of fertilizer is especially effective because its "ammonia" is in the natural "humus" form. The probability is that it will prove less effective, instead of more so.

MUCK AND PEAT AS CARRIERS OF NITROGEN.

The Ohio muck and peat deposits contain millions of tons of material which, when dried, will analyze 2 to 3 per cent. nitrogen; just as the phosphate beds of Tennessee contain millions of tons of rock containing phosphorus; but the nitrogen of the Ohio peat beds and the phosphorus of the Tennessee rocks are locked up in insoluble combinations from which they must be set free by chemical treatment before they can be utilized by growing crops.

The following quotation is from "Soil Fertility and Permanent Agriculture," by Dr. C. G. Hopkins, Chemist of the Illinois Experiment Station, than whom there is no better authority on soil fertilization:

"Train loads of dried peat are shipped from the peat beds of Illinois and elsewhere to the fertilizer factories for use as a filler; and as a filler it is said to be superior to all other materials, because it is a very effective absorbent and thus keeps the acidulated fertilizers in excellent mechanical condition. Dried peat contains from 3 to 4 per cent. of nitrogen which may be 'found' by analysis, although the nitrogen in peat is at best no more active than that in the ordinary organic matter

of the soil, which usually amounts to 3,000 to 4,000 pounds per acre in the plowed soil, so that 50 pounds of peat in 200 pounds of 'complete' fertilizer would not appreciably affect the crop."

Chemistry has given us certain tests by which we may determine whether the phosphorus of the fertilizer sack is available to plants, and chemists are hunting for a test by which they may similarly determine the availability of fertilizer nitrogen. Until such a test is discovered farmers should insist upon knowing whether the nitrogen in the fertilizer sack is carried in substances which have been found to yield their nitrogen generously to the plant, or whether the carrier of nitrogen is one which is notoriously stingy.

FERTILIZING PROBLEMS.

BY ALFRED VIVIAN,

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Real progress in the use of commercial fertilizers will never be made until our farmers come to realize that each farm is a problem of its own. The fertilizing scheme which is ideal for one farm may be the most irrational for another. So many factors enter into the question of what fertilizer is best to use, that, before a rational system of fertilization can be recommended for any particular farm, a detailed study of that farm must be made with a complete knowledge of its previous history. It is not enough, even, to know the location of the farm, the style of farming, and the type of soil, but, if advice is to be well founded, as much as possible must be known of the manner in which that soil has been handled. Soils sometimes are like patient people, whose faces do not show the internal suffering that they have borne because of the abuses heaped upon them by their selfish and thoughtless associates. In like manner a soil of good type does not always unfold to the superficial observer the history of its past abuses and neglect. The normal inherent properties of the different types of soil are coming to be pretty well understood, but the extent to which the soil has deteriorated through abuse is not so easily ascertained. It follows, therefore, that the only sound method of determining what fertilizer should be used on a certain farm is to ascertain the same by carefully conducted plot tests.

Many farmers hesitate to undertake these experimental tests because of fancied difficulties, hence the demands made on the colleges and Experimental Stations for specific advice as to the best fertilizer for use on a particular crop.

That the Experiment Station bulletins repeatedly show that there is no "best" fertilizer for wheat, for instance, which is adapted to all soils, in no way decreases the demand for such a formula. The old notion was that each crop required a special fertilizer with the chemical elements in a proportion especially favorable to that crop. The modern idea is that the soil, and not the crop, is the important factor, and that the needed variation of fertilization for different crops is not so great as the differences in fertilization made necessary by variation in the types of soils. The first question to be asked then is on what kind of soil is the fertilizer to be used, and after that for what crops.

Soil Characteristics.

Clay Soils are as a rule especially well stocked with potash, although it may be present in a very unavailable form. They have a reasonable amount of phosphoric acid and may or may not be rich in nitrogen.

Sandy Soils are usually deficient in all elements of fertility but especially so in potash.

Muck or Peat Soils are high in nitrogen, rather high in phosphoric acid, but very low in potash.

Limestone Soils when in virgin condition are proverbially rich soils, but are so generally abused that nearly all of them in Ohio are crying out for all the elements of plant food.

The one important fact that should be recognized by all farmers is that *there is no soil in the state of Ohio which contains sufficient phosphorus for the maximum crop*. The one safe proposition is that whatever may be said of nitrogen and potassium, in a particular soil, no mistake can be made in applying some carrier of phosphorus, for all of the soils of the state are deficient in this element.

FERTILIZERS FOR SPECIAL CROPS.

It follows from what has been said above that any recommendations of formulas for special crops must be regarded as tentative only, and should be varied to suit the soil to which they are applied. A soil especially rich in nitrogen, for instance, will permit of a decrease in the percentage of that element in the fertilizer. The suggested formulas are intended for use where the main dependence for the crop is placed on commercial fertilizers, and for a soil of rather low fertility.

CORN.

Corn is the crop which probably gives best returns for stable manure, and on most farms the manure is used on this crop. If the ground plowed for corn has had a liberal application of manure, or if it has a

good clover sod, probably a carrier of phosphoric acid like acid phosphate, or bone meal, will be all that is necessary, say 100 to 150 pounds of acid phosphate to the acre. In case the coating of manure was scanty, or the sod poor, some potash also should be used.

WHEAT.

Wheat responds to rather liberal fertilization. A mixture analyzing 4-10-4 will meet average conditions. Most farmers use too little fertilizer on wheat, for it gives a more profitable return for large applications. Four hundred pounds to the acre gives excellent returns at the Ohio Experiment Station.

OATS.

Oats gives less decided returns for nitrogen than does wheat. The nitrogen of the mixture recommended for wheat could be decreased, or if the oats followed corn which had been well manured perhaps a mixture analyzing 0-10-4 would be most profitable.

POTATOES.

Potatoes are generally supposed to require an extra supply of potash. A mixture carrying 3 to 4 per cent. of ammonia, 10 per cent. of phosphoric acid, and 6 to 8 per cent. of potash, is about right for average conditions. Here again it will pay to fertilize heavily—500 to 1,000 pounds to the acre is not uncommonly used by the extensive potato growers. Some of the potato growers of Long Island use a ton or more to the acre.

TOBACCO.

Tobacco is a gross feeder and should be fertilized heavily for best results. The combination which gives the greatest profit at the German-town Substation is about 1,000 pounds of a 4-10-9 mixture.

SUGAR BEETS.

Sugar Beets are grown most extensively in this state on the black lands which are naturally low in potash. The same mixture as that recommended for tobacco would probably be best for beets on such land. The nitrogen should be in very available form, preferably as nitrate of soda. If grown on clay loam soils the 4-10-6 mixture would undoubtedly be satisfactory.

MARKET GARDEN CROPS.

Market Garden Crops are seldom fertilized as heavily as they should be. Stable manure should be used abundantly and this should be reinforced with a liberal amount of an 0-10-8 mixture. The extra nitrogen for such early crops as lettuce, spinach, asparagus and early cabbage and cauliflower, is best supplied in nitrate of soda, added in applications of 150 pounds to the acre every two or three weeks during the spring. A total of 1,000 pounds of fertilizer to the acre is considered a moderate application by the eastern trackers. If a complete fertilizer is desired for these crops the one recommended for tobacco would be about right.

CELERY AND ONIONS.

Celery and Onions are largely grown on the black muck soils of the state and a fertilizer for them should be high in potash. The basic formula for tobacco meets the situation pretty well—even more potash would do no harm. Frequent applications of 100 pounds to the acre of nitrate of soda during the growing season is said to work wonders with both of these crops. It pays to use fertilizers liberally on both.

STRAWBERRIES.

Strawberries should be liberally supplied with phosphoric acid and potash in addition to that in the manure used in preparing the ground. An application of 150 pounds of nitrate of soda to the acre when the berries are beginning to set is said materially to increase the size of the fruit.

WHAT IS LIME?

An Elementary Lesson in Chemistry.

BY CHAS. E. THORNE,

Director, Ohio Experiment Station, Wooster, Ohio.

Everyone who has handled a lump of quicklime has noticed that it is much lighter in weight than an unburnt limestone of equal bulk. This means that one of the materials of which the original stone was composed has been driven off from the stone by the burning, and has escaped as an invisible gas into the atmosphere. This gas is carbon di-oxide (di—meaning two) the “carbonic acid gas” of the older chemistry. It is the same gas which is breathed out of the lungs, and if we pass our

breath through a tube into the bottom of a tumbler of limewater a white cloud will be formed by the union of the carbon dioxide of the breath with the lime dissolved in the water, thus reversing the results attained by burning; for the white cloud in the tumbler and the limestone in the quarry are both the same substance, namely; carbonate of lime.

If we first thoroughly dry a pure limestone and then burn it, we shall find that it has lost about 44% of its original dry weight. That is, 100 pounds of pure, dry limestone, or carbonate of lime, will produce about 56 pounds of lime. But what is lime?

CALCIUM.

The chemist is able to separate the burnt lime into two constituents, one of which again is the oxygen gas which constitutes about one-fifth of the air we breathe, while the other is a brilliant, light yellow metal called calcium, which rapidly tarnishes when exposed to moist air by recombining with oxygen and returning to lime. This elementary metal, calcium, is the essential constituent to which lime owes its peculiar properties. Oxygen and carbonic acid may be found in thousands of other combinations which have none of the characteristics of lime and perform none of its functions. We use lime, therefore, simply as a convenient carrier of calcium.

HYDRATED LIME.

If we expose a lump of freshly burnt lime to ordinary moist air, in the course of a few days, or weeks, depending largely upon the amount of moisture in the air, it will be found to have crumbled into a fine powder. In other words, it is air slaked. We may accomplish this result much more quickly by pouring water on the lump of lime, when it will fall to powder before our eyes, and with the evolution of considerable heat, thus showing that a chemical operation has taken place, in which the water has become chemically combined with the lime; for, unless excess of water has been used, this powder will be just as dry to our senses as the original quicklime. This combination of lime with water is called hydrated lime, and if we weigh the power resulting from either air slaking or water slaking we will find it to be about one-third heavier than the original quicklime from which it was produced, this additional weight being due to chemically combined water.

ATOMIC WEIGHTS.

Chemists have found that elementary substances, such as calcium, carbon, oxygen and hydrogen always combine with each other in certain fixed weights, or multiples of such weights, which are called atomic

weights, or combining weights; and hydrogen, which is the gas which causes balloons to rise, and is the lightest of known elements, is taken as the unit of weight. (The reason balloons rise is that hydrogen is lighter than air, not that hydrogen has no weight of itself; just as wood floats upon water because it is lighter than the water. If hydrogen be placed in a vacuum it will fall, instead of rising, just as wood falls in air.)

Measured by hydrogen as unity, the other elements which enter into the composition of lime in its various forms have the following atomic weights:

Calcium (Ca)	40
Oxygen (O)	16
Carbon (C)	12
Hydrogen (H)	1

CHEMICAL SYMBOLS.

In order to save space and time each element is given a symbol to designate it, these symbols being usually the first one or two letters of the name of the element, and the symbols of the elements under consideration are as given above in parentheses. In designating chemical compounds these symbols are so used as to show not only the elements contained but the proportion of each element in the compound: Thus water, which is a chemical combination of two combining weights of hydrogen with one combining weight of oxygen, has the symbol H_2O , which means that in 18 pounds of water 2 pounds are hydrogen and 16 pounds are oxygen; but 2 is approximately 11 per cent. of 18, and 16 is about 89 per cent. of 18, so we say that water is 11 per cent. hydrogen and 89 per cent. oxygen.

The symbol for lime is CaO , meaning that 40 pounds of calcium are combined with 16 pounds of oxygen in every total of 56 pounds; or 71 per cent. of calcium and 29 per cent. of oxygen.

The symbol for carbon di-oxide is CO_2 , meaning that one combining weight of carbon is united with two combining weights of oxygen, or 12 parts by weight of carbon with 32 parts by weight of oxygen, so that this gas is a little more than 27 per cent. carbon and a little less than 73 per cent. oxygen.

In carbonate of lime we have three elements to consider: calcium, carbon and oxygen, and the symbol of this compound is CaO , CO_2 or $CaCO_3$, so that in a given weight of pure limestone we would have for every 40 pounds of calcium 12 pounds of carbon and 48 pounds of oxygen. The sum of these weights is just 100, so that 100 pounds of carbonate of lime contains 40 per cent. calcium, 12 per cent. carbon and 48 per cent. oxygen.

Hydrated lime has the symbol CaO , H_2O or CaH_2O_2 , so that in a

given weight of hydrated lime the elements would have the ratio 40:2:32, or 54 per cent. calcium, 2.7 per cent. hydrogen and 43.3 per cent. oxygen.

RELATIVE VALUE OF CALCIUM CARRIERS.

Now let us see how much actual calcium we shall find in a ton of each of the different carriers mentioned:

Carrier.	Symbol.	Percentage Composition.				Pounds Calcium in one ton.
		Ca.	O.	C.	H.	
Quicklime -----	CaO -----	71	29	-----	-----	1,420
Hydrated lime-----	CaO, H ₂ O-----	54	43.4	-----	2.7	1,080
Carbonate of lime----	CaO, CO ₂ -----	40	48	12	-----	800

One ton of quicklime carries 1,420 pounds of calcium. To carry this quantity of calcium in hydrated lime would require as many hundred pounds of hydrated lime as 54, the quantity of calcium contained in 100 pounds of hydrated lime, is contained in 1,420 which is 26.3. It will therefore take 2,630 pounds of hydrated lime to carry as much calcium as is found in 2,000 pounds of quicklime. In the same way it is shown that 3,550 pounds, or nearly 2 tons, of carbonate of lime will be required to carry the calcium found in one ton of quicklime.

THE CARBONATES OF LIME.

Three forms of carbonate of lime are on the market; one produced by grinding raw limestone, one found in the beds of marl sometimes found under muck beds, and one resulting from manufacturing processes in which the carbonate is produced by chemical processes analagous to that which is witnessed when we breathe through a tube into a glass of limewater. This process, by which the carbonate of lime is precipitated, to use the chemist's term, results in a much finer powder than can be produced by ordinary grinding, and hence a precipitated carbonate of lime may be more quickly available than ground limestone. In actual practice, however, the experiments made by the Ohio Experiment Sta-

tion have shown no practical superiority of one form of lime over the other, provided the limestone has been so ground that 80 per cent. of it will pass through a sieve having 100 meshes to the linear inch, and provided also, of course, that the two materials are used on the basis of the actual calcium contained. As the outcome of these experiments the Experiment Station is using either one ton of quicklime or two tons of ground limestone per acre, which ever can be spread on the field in these quantities for the least money.

To illustrate this point, let us suppose that ground limestone and quicklime are offered at the same point of shipment at \$1.25 per ton for the former and \$5.00 for the latter. Let us assume that the freight will be \$1.50 per ton, and the cost of hauling from the car and spreading \$1.00 per ton. Our account will then stand as follows:

	<i>Quicklime</i> 1 ton.	<i>Ground Stone</i> 2 tons.
Cost at point of shipment.....	\$5 00	\$2 50
Freight	1 50	3 00
Hauling and spreading.....	1 00	2 00
Total	\$7 50	\$7 50

ADULTERATED LIMES.

A factor which is not taken into the above account is the greater discomfort in handling the quicklime than the ground stone. Moreover, sometimes, the so-called "agricultural lime" is suspected to contain more or less unburnt stone, ashes, etc., accumulating at the bottom of the kiln, which are ground up together. Such lime, of course, would not be pure quicklime, and a very little adulteration of this sort would bring the value of the one ton of "agricultural lime" much below that of the two tons of limestone. On the other hand, the ground stone is not always so finely ground as it ought to be to produce the best results, and it may sometimes be ground from rock containing sand or earth, although this probably is seldom the case, for when a product is worth only about a dollar per ton there is less inducement to adulterate it than when the price is higher.

MAGNESIA.

Magnesia (MgO) is the oxide of the element magnesium, which is very similar in its characteristics to calcium, and the two are generally found associated in ordinary limestones. Magnesium has a somewhat greater effect than calcium in correcting acidity, 84 pounds of magnesium carbonate being equivalent in this respect to 100 pounds of calcium carbonate. Within certain limits the presence of magnesium in the

limestone, therefore, is an advantage; but when used in excess magnesium may cause injury rather than benefit—which is also true of calcium, or any other good thing. The difference between magnesium and calcium in this respect is that it requires a smaller amount of the former than of the latter to cause injury. Such injury is more liable to follow the use of a magnesian lime, carrying magnesia in the caustic form, than when the carrier is in the carbonate form.

When the limestone carries nearly as much magnesium as calcium it is called a dolomite, and the use of quicklime made from such a stone might be questionable; when, however, the magnesia does not reach more than 25 to 30 per cent. in the lime there is but little danger of injury from it on ordinary Ohio soils, if applied at the usual rate of about a ton to the acre once in four or five years. There is but little danger from magnesia in the carbonate form.

THE ONE THING TO REMEMBER ABOUT LIME.

The one thing to remember about lime is that it is the natural calcium and magnesium carbonate which we find in limestone that does the work we want done in the soil, whether in feeding the plant or in neutralizing soil acidity, and that whatever be the carrier we may use, whether quicklime or hydrated lime, it will be quickly changed to the carbonate by the moisture and carbon di-oxide of the soil, and that the only reasons for using any other carrier than the natural carbonates are to secure the greatest fineness of division and to save freight and labor in handling.

WHEN TO USE LIME.

Half the soils of Ohio—covering the region west of a line drawn from Sandusky through Columbus to the west line of Scioto county, excepting Williams and Fulton counties and adjoining portions of Henry and Defiance counties—lie over limestones. In this region there may be old fields in which the supply of lime in the plowed surface has become deficient, but as a rule the expense of a general application of lime should not be incurred until a preliminary test has been made. Such a test is best made by liming a narrow strip across a field and observing the effect on the clover crop. For such an experiment common hydrated or builder's lime may be used at the rate of 15 to 20 pounds per square rod, or 2,000 to 3,000 pounds per acre.

At the Experiment Station the best results have followed when the lime has been applied to the surface while the land was being prepared for corn, the cultivation of the corn crop and the subsequent plowings mixing the lime through the seed bed so thoroughly that when the clover crop has come along in its regular place in the rotation it has found the soil acidity thoroughly corrected.

THE LITMUS TEST.

The litmus test is a simple chemical test for soil acidity, made by inserting a strip of blue litmus paper in moist soil and letting it stand for a few minutes. If the soil is acid, the paper will turn distinctly red. As the paper may sometimes be reddened by temporary conditions of acidity the actual application of lime as above described is much the better test. Litmus paper may be procured at most any drug store.

When lime is needed it should be applied in sufficient quantity to accomplish its work. At the Experiment Station the rule is to apply one ton of quicklime, $1\frac{1}{3}$ tons of hydrated lime, or two tons of carbonate of lime per acre as a first application, this to be followed every four or five years thereafter—or every time the corn crop comes around in rotation—by half the above quantities.

Lime cannot be satisfactorily applied with the ordinary fertilizer drill, as it does not sow enough and will not feed slaked lime regularly. Several good lime spreaders are now on the market.

While, as above stated, the need for lime is doubtful over the western half of the state, the case is very different over a large part of eastern Ohio, where the rock floor is made up of shales and sandstones. At the Experiment Station lime is adding six to eight bushels of corn to the acre, two to three bushels each of oats and wheat, and is more than doubling the clover crop.

The Agricultural Commission has been authorized by law to extend to the trade in agricultural lime the same control now exercised over that in fertilizing materials.

RAW PHOSPHATE ROCK AS A FERTILIZER.

BY CHAS. E. THORNE,

Director, Ohio Experiment Station, Wooster, Ohio.

The carrier of phosphorus usually employed in compounding chemical fertilizers is a phosphatic rock, found in certain parts of South Carolina, Florida and Tennessee. In this rock the phosphorus is combined with lime in nearly the same proportions in which the same two substances are combined in animal bone; but in its natural condition the phosphate rock is found to be nearly insoluble, and as the food of plants must first be dissolved in water the action of the natural phosphate rock has been found to be extremely slow, even when the rock has been ground into the almost impalpable powder, known as floats.

WHY IS ROCK PHOSPHATE TREATED WITH SULPHURIC ACID?

To overcome this difficulty it has been customary to treat the rock with sulphuric acid, using approximately equal quantities of the two, the acid converting the rock into a soluble form, and making a product known as "super-phosphate," or more commonly, as "acid phosphate."

WHAT ARE THE KNOWN CARRIERS OF PHOSPHORUS?

Bones were used as carriers of phosphorus to crops long before the phosphate rock was discovered, and the discovery was made many years ago that bones might be softened and thus made more easily soluble by compacting them for some months with manure. In view of this fact, an experiment was begun at the Ohio Experiment Station in 1897, in which both floats and acid phosphate were incorporated with manure and plowed under for corn in a three-year rotation of corn, wheat and clover, the manure being used in two conditions, either fresh from stables in which steers were being fattened, or from the same stables, but first thrown into an open yard and allowed to lie from January until April exposed to the weather before being spread on the field.

COMPARISON BETWEEN FLOATS AND ACID PHOSPHATE.

Both acid phosphate and floats have been used at the rate of 40 pounds per ton of manure, equivalent to nearly one pound per 1,000-pound animal per day, and the manure has been used at the rate of eight tons per acre.

Taking the average results of this test for the 16 years, 1897 to 1912, inclusive, and valuing corn at 50 cents per bushel, wheat at 90 cents and hay at \$8.00 per ton, we find that the floats-treated manures have produced crops having an annual value greater by \$3.94 per acre than those grown from the untreated manures, while the crops grown from the manures treated with acid phosphate have been greater by \$4.00 per acre annually than those grown from the untreated manures.

The cost of treatment with floats is estimated to have been 43 cents per acre annually, and that from the acid phosphate, 70 cents per acre, comparison being made on the basis of bulk carloads, hence the floats has been the cheaper material to use, by about 20 cents per acre annually.

As the floats has carried twice as much phosphorus to the soil as the acid phosphate, it appears that the manure is rendering only a part of the phosphorus in the floats available. Whether the unused phosphorus will become available to future crops is for the future to determine.

ANOTHER COMPARISON BETWEEN FLOATS AND ACID PHOSPHATE.

Another comparison between floats and acid phosphate was begun at Wooster in 1905 in a three-year rotation of corn, oats and clover. The outcome of the test for the eight years, 1905 to 1912, is summarized below:

<i>Plot.</i>	<i>Treatment.</i>	<i>Net Annual Value of Increase.</i>
17	Caustic lime, 1,000 lbs. Acid phosphate, 320 lbs. Muriate of potash, 40 lbs.	\$3 97
18	Caustic lime, 1,000 lbs. Floats, 320 lbs. Muriate of potash, 40 lbs.	\$3 43
21	Acid phosphate, 320 lbs. Muriate of potash, 40 lbs.	\$1 59
24	Floats 320 lbs. Muriate of potash, 40 lbs.	\$0 57
20	Acid phosphate, 320 lbs.	\$0 86
23	Floats, 320 lbs.	\$0 33

In the above statement the cost of treatment has been deducted from the value of the increase.

EXPERIMENT WITH FLOATS AT STRONGSVILLE.

In 1905 a third experiment in the use of floats was begun at the Strongsville test farm, where an experiment in the use of different combinations of fertilizing materials on crops grown in a five-year rotation of corn, oats, wheat, clover and timothy had been in progress since 1895. In this third experiment ground limestone and floats are being applied side by side across all the plots in the test, the limestone being applied to the south ends of the plots at the rate of two tons per acre and the floats to the north ends at the rate of one ton per acre, both treatments being applied once in five years, and to the corn crop.

The outcome of this test is that on the unfertilized land the average total value of the five crops of the rotation has amounted to \$37.19 per acre for the five years preceding the use of lime and floats, as against \$46.46 per acre for the limed land and \$60.73 per acre for the floats-treated land for the eight years since this treatment was begun.

The ground limestone has cost about \$2.50 per ton or \$5.00 per acre, spread on the land, and the floats about \$8.50 per acre. Deducting

these charges, the limed land has given a net income greater by \$4.00 for each five-year rotation than the previous return from untreated land, and the floats-treated land has returned a net gain of \$15.00 per acre for each rotation.

DO RESULTS JUSTIFY USE OF FLOATS?

Taken by itself this outcome would abundantly justify the use of floats; but part of this land has received acid phosphate at the rate of 320 pounds per acre for each rotation throughout the entire course of the experiment, with the result that the increase from the quantity of acid phosphate over the unfertilized yield has amounted to \$22.68 per acre for each rotation before the cross-dressings with lime and floats were begun, and to \$27.17 per acre on the limed land and to \$7.58 per acre on the floats-treated land during the later period. Among these increases from acid phosphate to the unfertilized yields given above and deducting cost of treatment, we get the following results:

TOTAL VALUES PER ACRE FOR A FIVE-YEAR ROTATION.

	<i>Untreated.</i>	<i>Limed.</i>	<i>Floats-treated.</i>
Unfertilized	\$37 19	\$46 46	\$60 73
Acid phosphate	22 68	27 17	7 58
Total	\$59 87	\$73 63	\$68 31
Cost of treatment.....	2 24	7 24	10 74
Net value	\$57 63	\$66 39	\$57 57

It would seem from these experiments that 320 pounds of acid phosphate has produced a total yield of \$59.87, on the unlimed land, as against a yield of \$60.73 from a ton of floats, and that the reinforcement of acid phosphate with lime has very materially increased the total and net return.

VALUE OF FLOATS APPROXIMATELY MEASURED BY ITS AVAILABLE PHOSPHORIC ACID.

The floats used in this experiment was represented to contain about 3 per cent. available phosphoric acid, or 60 pounds to the ton. The acid phosphate used has been the 14 per cent. grade, which would amount to about 45 pounds of available phosphoric acid in the 320 pounds used on each rotation. It appears, therefore, that the value thus far realized from the floats has been approximately measured by its available phosphoric acid.

It will be observed that the acid phosphate has produced a much greater effect on the limed land than on that left without lime, thus supporting the experiment at Wooster, reported above. In the Strongsville test, lime and floats have not been used on the same land, but the test at Wooster shows that, although lime has added to the effectiveness of the floats, it has added much more to that of acid phosphate.

SHOULD FLOATS BE APPLIED DIRECT TO LAND?

The general outcome of all this work appears to be that whereas floats may be profitably used in stables or barnyards as a reinforcement of manure, it is not advisable to use it as a direct application to the land.

BONE FERTILIZERS.

BY E. E. SOMERMEIER,

Chemist, Ohio State University, Columbus, Ohio.

For use in fertilizers bones are put upon the market under a number of trade names, such as pure raw bone, bone meal, pure bone flour, steamed bone meal, special bone meal, etc. These various brands correspond to several different forms of bone which differ considerably in their physical condition and in their percentage content of ammonia and phosphoric acid. Ordinary bone consists of about 40 per cent. organic matter and about 60 per cent. mineral matter. The organic matter if allowed to remain in the bone is the source of the ammonia in bone fertilizers. If extracted before the bone is prepared as a fertilizer it is a commercial source of glue. The mineral portion of bone is calcium phosphate ($\text{Ca}_3(\text{PO}_4)_2$). Chemically this material is similar to the calcium phosphate of raw phosphate rock, but bone being porous and cellular, plants are able to use it much more readily than ordinary raw rock phosphate.

The four most common grades or classes of bone fertilizers are raw bone meal, bone meal, steamed bone meal and acidulated bone meal. The nature, preparation and composition of these products are as follows:

RAW BONE MEAL.

This is a product resulting from boiling bones in an open vat for a short time to remove the flesh and fat. Practically all of the glue remains in the bones. After drying these are ground and sacked.

Raw bone meal contains about $4\frac{1}{2}$ per cent. of ammonia and about 22 per cent. of total phosphoric acid.

BONE MEAL.

This is the residue resulting from cooking packing-house bones in open vats for glue. After practically all the glue that can be boiled out by this method has been extracted the residue is pressed, dried, ground and sacked.

The composition of bone meal ranges from about 3 per cent. of ammonia and 24 per cent. of total phosphoric acid to about 2 per cent. of ammonia and 27 per cent. of total phosphoric acid.

STEAMED BONE MEAL.

This product is similar to bone meal except that instead of being boiled for glue in open vats it is treated in pressure tanks under high steam pressure. This process removes more glue than the open vat boiling, with the result that the steamed bone meal which is obtained contains very little nitrogen, runs higher in phosphoric acid than the bone meal, and is finer divided as to mechanical condition, due to its pressure treatment.

Steamed bone meal contains about 1 per cent. of ammonia and 28 to 30 per cent. of total phosphoric acid.

ACIDULATED BONE MEAL.

This is made by treating regular bone meal with a small quantity of sulphuric acid, enough to make practically all of the phosphoric acid water soluble. The operation is carried on by adding to the bone meal a proper proportion of sulphuric acid, in a mechanically operated mixing pan, discharging the liquid resulting into what is known as dens, where the material solidifies, cools and dries out a little. It is dug out of these dens either by hand or mechanically, and placed in a pile to cure for two or three months when it is ready for shipping.

Acidulated bone contains from 1 to $1\frac{1}{2}$ per cent. of ammonia and from 12 to 15 per cent. available phosphoric acid.

The boiling and steaming of the bones to remove glue removes a large part of the nitrogen and the resultant product is accordingly much lower in content of ammonia. This separation of the glue from the bone makes the part remaining higher in percentage content of calcium phosphate since all of the phosphate present in a given lot of raw bone is all contained in a smaller weight of the boiled or steamed product, which product as a result runs higher in percentage content of phosphoric acid. Acidulated bone runs low in ammonia and phosphoric acid content because of the fact that the large amount of sulphuric acid added to convert the phosphoric acid into a more soluble form remains in the products

as calcium sulphate. If, for example, to bone meal containing 3 per cent. of ammonia and 26 per cent. phosphoric acid are added an equal weight of sulphuric acid the 3 per cent. of ammonia and 26 per cent. of phosphoric acid will be distributed through twice as much material and the resultant analysis of the product will be ammonia 1.5 per cent. and phosphoric acid 13 per cent.

MEDIUM AND FINE BONE.

Depending upon fineness, bone meal, raw bone, etc., is separated into two constituents, medium bone and fine bone. That portion which will pass through a sieve having 25 meshes to the linear inch is called fine bone. That portion remaining on the sieve is called medium bone. Formerly when the method of grinding bone was not so efficient as at present, this portion was further separated into coarse and medium bone, the coarse being that portion too large to pass through a sieve having 12 meshes to the linear inch. At the present time practically all of the product is finer than 12 mesh, hence the only divisions necessary are medium and fine bone.

BONE BLACK.

This is the product obtained by heating bone and animal refuse in the absence of air. The organic matter is decomposed and driven off by the process and the residual bone black so obtained consists principally of calcium phosphate with a relatively small percentage of carbon. This bone black is used as a filtering medium for clarifying syrup in sugar refining. After becoming foul from use for this purpose it is sold as a fertilizer. Bone black is essentially the ash from bone plus a little carbon and is largely calcium phosphate. The changes produced by heating have entirely destroyed the bone as such, and the residual ash is merely so much mineral residue, not differing greatly from the calcium phosphate in rock phosphate. Bone black, properly speaking, is not a bone fertilizer and the phosphorus present is given a valuation the same as phosphorus in rock phosphate.

VALUE AND EFFECT OF THE DIFFERENT FORMS UPON CROPS.

The total value of each is dependent upon the total amounts of ammonia and phosphoric acid present. Owing to the differences in physical condition, as differences in fineness and differences in porosity, some forms are more quickly available than others. Steamed bone and acidulated bone are more rapid in their effect upon crops than bone meal and raw bone which usually contains a considerable amount of medium bone. These medium bone portions are decomposed so slowly

that their immediate effect upon a crop is not very great but the beneficial effects upon crops are noticeable for two or three years. The beneficial effects from the finer and more readily available forms are more largely realized during the first year.

PERCENTAGE COMPOSITION.

The amount of phosphorus in a fertilizer may be stated in several ways: the per cent. of phosphorus, the per cent. of phosphoric acid (P_2O_5) or the per cent. of bone phosphate or calcium phosphate ($Ca_3(PO_4)_2$). Expressed in these different forms, the percentage relations are to each other as 62, 142 and 310. For example, a sample of fertilizer containing 50 per cent. of calcium or bone phosphate contains 142/310 of 50 or 22.9% of phosphoric acid (P_2O_5), or 31/310 of 50 or 5% of phosphorus. These different expressions, 50% bone phosphate, 22.9% P_2O_5 or 5% phosphorus, represent the same actual amount of phosphorus present in the material.

USE OF FERTILIZERS.

By N. W. LORD.

Commercial fertilizers contain practically nothing of value but phosphoric acid, ammonia and potash. These substances have a regular commercial price like sugar or iron. They are present in all fertile soils in small amounts. In many soils one or more of them are not present in sufficient amount to give good crops.

Fertilizers are added to supply these deficiencies. It is a waste of money to purchase and add to the soil any of these materials already present in sufficient amount. Certain crops need an extra quantity of one or more of them. Fertilizers will not take the place of proper cultivation. Fertilizers will not take the place of humus or organic matter in the soil.

AMMONIA.

Is the most expensive by far of the three essentials. Ammonia can also be supplied to the soil by proper use of clover, cow peas, soy beans and other similar crops. These plants get it from the air. Ammonia can be supplied by manure. Ammonia should only be purchased where farm sources are not properly available. Good farming in part consists in preserving and increasing the natural sources of ammonia on the farm by the use of manure and proper plants in rotation.

PHOSPHORIC ACID

Is needed on most Ohio soils. The amount in the soil cannot be increased by cropping. It usually pays to purchase it. It is especially needed by grain crops. Barnyard manure contains too little phosphoric acid. Its value is greatly increased by adding phosphate to it. Insoluble phosphoric acid like that in raw rock is made available to a considerable extent when mixed with manure, but it is not available alone.

POTASH

Is taken from the soil by hay and straw more than by grain. It is not naturally deficient in most Ohio soils. It is particularly needed by some crops like potatoes and tobacco. Some dark "mucky" soils need it naturally. Selling straw, hay and fodder tends to exhaust the potash from soils.

WORN-OUT SOILS.

In building up worn-out soils complete fertilizers may be needed at first to get crops started, but the continued use of them when not accompanied by return of organic matter to the soil by manure or clover will leave the land in worse shape than in the beginning.

"LOOKS" OF PLANT.

The "looks" of the plants will often indicate what is lacking. Ammonia promotes growth, and weak plants and light green foliage often grow with lack of it, provided other conditions are right for growth. Lack of phosphoric acid and potash will sometimes show in character of grain as well as yield. Continued use of superphosphate (acid rock) tends to soil acidity. This can be corrected by lime or ground limestone.

FIELD EXPERIMENTS WITH FERTILIZERS.

BY CHAS. E. THORNE,

Director, Ohio Experiment Station, Wooster, Ohio.

The statistics of crop production in Ohio show that about three million acres of corn are grown annually, nearly two million acres of wheat, and about a million and one-third acres of oats. Three-quarters of a million acres of clover are mown for hay and about two million of other grasses than clover, while nearly seven million acres are pastured.

Many farmers in the state practice a more or less systematic rotation in which corn, oats and wheat are grown in succession, followed by clover and timothy. Some practice a regular five-year rotation, while

more mow or pasture the timothy for several years. In the southern and western counties two crops of corn are frequently grown in succession to be followed directly by wheat, omitting the oats crop, and in the river valleys there is too much continuous culture of corn, year after year on the same land.

YIELD FOR TEN-YEAR PERIOD, 1900-1909.

During the ten-year period, 1900 to 1909 inclusive, the average yields of the principal crops were as shown in the table below. If these crops had been grown in a systematic rotation of corn, oats, wheat, clover and timothy, one year each, they would have removed from the soil during each five-year period approximately the quantities of nitrogen, phosphorus, potassium and calcium shown in the table, the yields of clover and straw being estimated on the proportion of stover or straw to grain found in the Experiment Station's experiments, and the composition of the crops being based on the Station's analyses of Ohio grown crops.

TABLE I.
Average yield and composition of Ohio Crops.

Crop.	Yield per acre.	Fertilizing Constituents.			
		Nitrogen.	Phosphorus.	Potassium.	Calcium.
		Lbs.	Lbs.	Lbs.	Lbs.
Corn—grain -----	36.6 bus. -----	36.0	4.9	7.0	0.4
stover -----	1,900 lbs. -----	15.5	1.3	14.8	6.9
cobs -----	500 lbs. -----	2.5	0.1	3.3	0.3
Total -----	-----	54.0	6.3	25.1	7.6
Oats—grain -----	32.5 bus. -----	20.9	4.3	6.0	0.8
straw -----	1,400 lbs. -----	8.1	1.2	15.3	5.0
Total -----	-----	29.0	5.5	21.3	5.8
Wheat—grain -----	14.5 bus. -----	17.2	3.0	3.1	0.3
straw -----	1,600 lbs. -----	8.5	1.5	13.3	3.0
Total -----	-----	25.7	4.5	16.4	3.3
Clover—hay -----	2,240 lbs. -----	48.5	4.1	25.2	31.8
Timothy—hay -----	2,260 lbs. -----	19.0	3.0	30.2	5.1

The table shows that the greater part of the nitrogen and phosphorus of the crop are found in the grain, and the greater part of the potassium and lime in the straw and stover. Hence it follows that in a system of agriculture in which grains only are sold off the farm, the hay and straw being returned to the land directly or in manure, the soil may be expected to show a deficiency in nitrogen and phosphorus long before any lack of the other three elements is manifested. This tendency to early exhaustion of phosphorus will be manifested even where the major part of the grains, as well as the rough produce, are fed, because phosphorus is a chief constituent of bone and nerve tissues, and the growing animal must extract from its food a large proportion of this element in building its skeleton, which it carries away from the farm when it goes to market. The same loss of phosphorus occurs in the production of milk, for milk is the natural food of the young animal, and therefore must contain a plentiful supply of phosphorus.

Where the system of agriculture is such as to remove from the land not only the grain of the crop but the stem and leaves as well, as where tobacco is grown or where hay and straw are sold off the farm—a system which has been largely followed in the lower Miami Valley—it is to be expected that not only phosphorus but potassium also will be found deficient.

INDICATIONS OF LIME DEFICIENCY IN THE SOIL.

In respect to calcium—the basis of lime—it will be observed that most crops contain this element and phosphorus in almost equivalent proportions; in fact, the two elements are combined in bones as phosphate of lime. The clover crop, however, is peculiar in its use of lime, an acre of clover containing nearly ten times as much of this substance as an acre of wheat, and four times as much as an acre of corn, hence when lime becomes deficient in the soil the clover crop will be the first to suffer.

FERTILIZING THE CORN CROP.

EXPERIMENTS AT WOOSTER.

Four field experiments are being conducted by the Ohio Experiment Station, in which corn has been grown in rotation with other crops for periods of 8 to 18 years. One of these is located at the main station at Wooster, on a thin, sandy clay, originally occupied chiefly with white oak timber, but subjected to exhaustive farming for nearly a century.

AT STRONGSVILLE.

The second is in Strongsville township, Cuyahoga county, northeastern Ohio, on a thin, white clay, originally timbered with surface

rooting trees, such as beech and elm, but which had been in pasture for 25 years before the experiment was begun.

AT CARPENTER.

The third is in southeastern Ohio at Carpenter, Meigs county, in a field of a hilly stock farm which had been used alternately for cropping and pasturage for many years. The soil is a light colored clay, the original timber chiefly white oak.

AT GERMANTOWN.

The fourth is at Germantown, Montgomery county, southwestern Ohio, a clay farm of the general upland type of the Miami valley, originally timbered chiefly with white oak, with some sugar. This land also had been subjected to exhaustive cropping for many years.

EXPERIMENTS ON CROPS GROWN IN THREE-YEAR AND FIVE-YEAR ROTATIONS.

In these experiments the rotations are a five-year rotation of corn, oats, wheat, clover and timothy at Wooster and Strongsville, and a three-year rotation of corn, wheat and clover at Carpenter and Germantown.

The following tables show the average outcome of these experiments to the end of the year 1912.

Table II exhibits the effect of the three fertilizing elements, nitrogen, phosphorus and potassium, as carried in nitrate of soda, acid phosphate and muriate of potash, on the corn crop in these experiments:

TABLE II.

Increase per acre from different fertilizing elements on corn grown in rotation.

Treatment.	Station and increase per acre.			
	Wooster, 18-yr. av.	Strongsville, 18-yr. av.	Germantown, 9-yr. av.	Carpenter, 9-yr. av.
	Bus.	Bus.	Bus.	Bus.
Phosphorus alone -----	7.5	8.7	7.4	7.1
Potassium alone -----	4.6	0.9	-----	-----
Nitrogen alone -----	4.8	1.4	-----	-----
Potassium and nitrogen-----	6.8	2.4	4.5	2.1
Phosphorus and potassium-----	14.2	9.6	13.2	8.0
Phosphorus and nitrogen-----	14.5	10.0	9.1	6.5
Phosphorus, potassium and nitrogen-----	18.4	11.7	14.9	11.9

At Wooster and Strongsville phosphorus is given to the corn crop in 80 pounds of acid phosphate per acre, and at Germantown and Carpenter in 120 pounds; muriate of potash is used at the rate of 80 pounds at Wooster and Strongsville and of 20 pounds at Germantown and Carpenter; and nitrate of soda is used at the rate of 160 pounds at Wooster and Strongsville and of 80 pounds at Germantown and Carpenter.

The table shows that in every case there has been a large increase of crop from the application of phosphorus. When potassium and nitrogen have been used alone they have each produced a little more than half the increase at Wooster given by phosphorus, but when combined with each other the effect is still below that of phosphorus, although when either or both of them is combined with phosphorus the combined increase is greater than the sum of the separate increases.

On the old pasture field at Strongsville, however, the increase produced by the applications of potassium and nitrogen has been but about a bushel per acre for each element, whether used separately or in combination—an increase far below the additional cost of the fertilizer.

At Germantown the results indicate a relatively large effect from potassium and nitrogen in combination. (The separate applications of nitrogen and potassium have not been made at Germantown and Carpenter.)

At Carpenter the results are similar to those at Germantown, although the rate of increase is smaller.

An important point in these experiments is brought out by Table III, which shows that there has been a cumulative effect from the fertilizers, the increase being greater during the second rotation than during the first in every case except on the land receiving phosphorus only at Germantown. As each crop is grown every season, the periods at Wooster and Strongsville include five crops, and those at Germantown and Carpenter three crops. The meaning of this outcome is that the full effect of a fertilizer is never realized in the crop to which it is applied, but is distributed over several subsequent crops. It will be observed that this increased effect during the later period has always been more than enough to offset any production in yield of the unfertilized land, with the one exception noted.

TABLE III.

Cumulative effect of fertilizers on corn.

Treatment and Station.		Period.		
		First.	Second.	Third.
		Yield per acre.		
		Bus.	Bus.	Bus.
Unfertilized -----	Wooster -----	31.9	30.8	31.0
	Strongsville -----	26.1	20.8	32.1
	Germantown -----	46.4	45.2	35.1
	Carpenter -----	36.4	36.0	34.3
		Increase per acre.		
Phosphorus only -----	Wooster -----	4.0	9.7	9.8
	Strongsville -----	4.0	13.4	8.4
	Germantown -----	8.7	6.1	7.5
	Carpenter -----	2.8	6.6	11.9
Phosphorus and potassium-----	Wooster -----	7.2	14.2	19.4
	Strongsville -----	4.5	10.9	13.5
	Germantown -----	10.4	14.7	14.6
	Carpenter -----	6.3	8.2	10.5
Phosphorus, potassium and nitrogen -----	Wooster -----	8.4	19.4	24.0
	Strongsville -----	9.4	13.0	12.5
	Germantown -----	11.6	16.7	16.4
	Carpenter -----	8.4	12.6	14.9

FERTILIZING THE WHEAT CROP.

Table IV shows the effect of the different fertilizing elements on the wheat crops grown in these experiments, the wheat receiving the same kinds and quantities of fertilizing materials as the corn at Germantown and Carpenter, but getting twice as much phosphorus and one-fourth more potassium at Wooster and Strongsville.

TABLE IV.

Increase per acre from different fertilizing elements on wheat grown in rotation.

Treatment.	Station and increase per acre.			
	Wooster, 19-yr. av.	Strongsville, 15-yr. av.	Germantown, 7-yr. av.	Carpenter, 8-yr. av.
	Bus.	Bus.	Bus.	Bus.
Phosphorus alone -----	7.9	7.0	4.9	4.5
Potassium alone -----	1.2	*0.5	-----	-----
Nitrogen alone -----	1.9	*0.3	-----	-----
Potassium and nitrogen -----	2.7	1.6	1.3	2.2
Phosphorus and potassium -----	9.0	8.2	6.3	6.4
Phosphorus and nitrogen -----	13.1	10.0	7.1	6.0
Phosphorus, potassium and nitrogen -----	15.8	9.9	8.9	8.9

*Decrease.

Table IV shows that in wheat, as on corn, phosphorus has been the dominant element in increasing the yield. Potassium and nitrogen, when used alone, have produced a very small increase at Wooster and none at all at Strongsville, the yield on these plots at Strongsville being less than when no fertilizer has been used. The combination of potassium and nitrogen has produced a small increase in every test, but never enough to pay its cost. When nitrogen has been added to phosphorus the yield has been largely increased in every case, and when potassium has been added to this combination of nitrogen and phosphorus a further gain has been made in every case except at Strongsville, where again the influence of potassium has been injurious, rather than beneficial.

One hundred pounds of muriate of potash, added to the dressing of phosphorus and nitrogen, has increased the yield at Wooster by a little more than three bushels, but 20 pounds of the same salt has added the same increase at Carpenter and nearly two bushels at Germantown. It appears therefore, that the use of potassium at Wooster and Strongsville has been excessive.

RESIDUAL EFFECT OF FERTILIZERS ON CLOVER AND TIMOTHY.

As has been stated above, in these experiments the fertilizers are all applied to the grain crops, and the clover, or clover and timothy, follow as gleaners; but Table V shows that these crops derive a very material benefit from the treatment of the preceding crops:

TABLE V.

Residual effect of fertilizers on clover and timothy.

Treatment.	Station and increase per acre.					
	Wooster.		Strongsville.		Germ'n- town.	Carpenter.
	Clover, 18-yr. av.	Timothy, 17-yr. av.	Clover, 16-yr. av.	Timothy, 9-yr. av.	Clover, 8-yr. av.	Clover, 8-yr. av.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Phosphorus alone	550	293	934	273	552	368
Potassium alone	239	134	83	*149	-----	-----
Nitrogen alone	357	430	191	75	-----	-----
Potassium and nitrogen....	442	374	243	29	155	12
Phosphorus and potassium..	995	495	670	438	650	632
Phosphorus and nitrogen....	1,172	840	775	427	735	460
Phosphorus, potassium and nitrogen	1,445	991	870	504	683	761

*Decrease.

Table V agrees with all that have been given before in showing that phosphorus has been by far the most effective single element, but that in all the tests, except on the clover crop at Strongsville, the effect of the fertilizers has been materially enhanced when phosphorus has been combined with either potassium, or nitrogen, or both.

THE FINANCIAL OUTCOME.

All this work, however, would be of no practical value to the farmer if the fertilizers were costing more than the value of the increased crop produced. This point is illustrated in Table VI, in which the cost of the fertilizers is estimated on the basis of \$16.00 per ton for 14 per cent. acid phosphate, 2½ cents per pound for muriate of potash and 3 cents per

pound for nitrate of soda, prices at which these materials should be purchased at retail, delivered, freight paid, at the average Ohio railway station, and the value of the increase is computed on the basis of 50 cents per bushel for corn, 33 1-3 cents for oats, 90 cents for wheat and \$8.00 per ton for hay, no account being taken of the increase of straw and stover, which are assumed to balance the labor of applying the fertilizer and of harvesting the additional crop produced.

TABLE VI.

Average annual cost of fertilizers value of increase and net gain or loss (—) per acre.

Station.	Treatment.						
	Phosphorus alone.	Potassium alone.	Nitrogen alone.	Potassium and nitrogen.	Phosphorus and potassium.	Phosphorus and nitrogen.	Phosphorus, potassium and nitrogen.
Wooster—							
Value of increase.....	\$3 43	\$1 21	\$1 72	\$2 24	\$5 06	\$6 45	\$7 92
Cost of fertilizer.....	52	1 30	2 88	4 22	1 82	3 40	4 70
Net gain, or loss (—)	2 91	—0 09	—1 16	—1 98	3 24	3 05	3 22
Strongsville—							
Value of increase.....	3 72	—0 95	32	93	4 00	4 55	4 92
Cost of fertilizer.....	52	1 30	2 88	4 22	1 82	3 40	4 70
Net gain, or loss (—)	3 20	—2 25	—2 56	—3 29	2 18	1 15	22
Germantown—							
Value of increase.....	3 44	-----	-----	1 36	4 98	4 62	6 05
Cost of fertilizer.....	63	-----	-----	1 93	97	2 23	2 57
Net gain, or loss (—)	2 81	-----	-----	—0 57	4 01	2 39	3 48
Carpenter—							
Value of increase.....	3 01	-----	-----	1 04	4 17	3 49	5 66
Cost of fertilizer.....	03	-----	-----	1 93	97	2 23	2 57
Net gain, or loss (—)	2 38	-----	-----	—0 89	3 20	1 26	3 09

As previously stated, the carrier of phosphorus employed in these experiments has been acid phosphate, and it has been used on each of the cereal crops in the rotations at the rate of 80 to 160 pounds per acre, the total application being equivalent to an annual dose of 64 pounds for each of the five crops grown at Wooster and Strongsville, and of 80

pounds for each of the three crops grown at Germantown and Carpenter. Thus used, the phosphate when used alone has produced increase worth from four to seven times its cost.

Nitrogen and potassium, as carried in nitrate of soda and muriate of potash—and these are both the cheapest and most effective carriers of these elements available, considering the price at which “ammonia” and “potash” are sold in mixed fertilizers—have been used at a loss when used separately or in combination with each other only. When, however, potassium has been combined with phosphorus the net gain has been greater than that from phosphorus alone in every case except at Strongsville. The combination of nitrogen with phosphorus has not given so large a net gain as that from phosphorus alone, but when potassium has been added to this combination the net gain, again excepting Strongsville, has exceeded that from the phosphorus alone, notwithstanding the greatly increased cost of the fertilizer.

At Wooster and Strongsville the dose of potassium for the entire rotation has been equivalent to an annual application of 52 pounds of muriate of potash. At Germantown and Carpenter it has amounted to but 13 pounds of the muriate annually. The total increase for this smaller quantity has been nearly as great at Germantown and Carpenter as from the larger quantity at Wooster, while the cost has been only about one-fourth as much. It is probable that a part of this difference is due to a greater need for potassium in the soils at the southern test-farms, but this only makes it the more certain that potassium has been used extravagantly at Wooster and Strongsville. That potassium is of some service on both these soils, however, is seen by comparing the total value of increase, as shown in the last two columns of Table VI.

LIMING THE LAND.

Experiments with lime were begun at Wooster in 1900, the lime being applied across the west half of each of the five ranges of plots used in the five-year rotation, liming unfertilized and fertilized land alike. This work has been continued since, with the average outcome indicated in Table VII, which is calculated to the end of the year 1911.

TABLE VII.

Effect of lime on crops grown in rotation at Wooster.

Crops.	Treatment.				
	No fertilizer nor lime. Total yields per acre.	Increase per acre.			
		Phos- phorus.	Phos- phorus and po- tassium.	Phos- phorus, potas- sium and nitrogen.	Phos- phorus, potas- sium nitrogen and lime.
Corn, bushels -----	26	10	14	20	32
Oats, bushels -----	31	19	21	29	31
Wheat, bushels -----	9	9	10	19	22
Clover, pounds -----	1,600	570	890	1,470	2,200
Timothy, pounds -----	1,900	650	840	1,850	3,520
Value of total increase -----		\$24 30	\$29 90	\$50 00	\$69 00
Cost of fertilizer and lime -----		2 60	9 10	23 50	29 50
Net gain -----		21 70	20 80	26 50	39 50

Table VII brings out strikingly the improvidence of halfway measures in dealing with a soil so completely exhausted of all the elements of fertility as this land has become under the close cropping which has been practiced on it for many years. It does not follow, however, that all soils will be benefited by lime to the extent shown here. The Germantown Test farm is located on a deep bed of glacial drift, made up largely from the decomposition of limestone gravel, and while this soil, like that at Wooster, shows the effect of hard usage in its quick response to fertilizers, lime is having comparatively little effect, the seven-year average increase from 1,000 pounds of quicklime being apparently about half a bushel of wheat and 150 pounds of clover hay.

CONCLUSIONS.

The lesson taught by these experiments is that on soils which have been subjected to close cropping for many years some method must be devised for the systematic return to all soils of available phosphorus, potassium and nitrogen, and to some soils of lime in addition, if the highest results are to be attained. Other experiments than those reported here show that the loss of nitrogen and potassium may be largely reduced by the production, saving and use of manure, and that by this method the cost of fertility maintenance may be greatly reduced; the

principle, however, remains the same; namely, that the supply of the four elementary substances named must be maintained in the soil by some means if the land is to return the greatest profit to the farmer. A further lesson suggested is that by the intelligent foresight which science now makes possible the deterioration which is now taking place in our soils may be not only stopped but converted into improvement, and this by measures which will bring a steadily increasing income to the farmer.

ORCHARD FERTILIZATION WORK BY THE OHIO EXPERIMENT STATION IN SOUTHEASTERN OHIO.

By F. H. BALLOU,

Assistant Horticulturist.

In no feature of modern orchard treatment, excepting the spraying for control of insect pests and fungous diseases affecting trees, foliage and fruit, have more marked results been obtained than from the Ohio Experiment Station's apple orchard fertilization tests on the worn and thin upland soils of southeastern Ohio.

DISCUSSION OF CONDITIONS.

A discussion of conditions of orchards and orchard soils, and the causes leading up to those conditions in the section of the state above named, was submitted in a former report, and need not be repeated here. However, to the figures obtained in 1911 (and already reported) as the result of orchard fertilization tests begun in 1910, we have been able to add the figures obtained from the crop of 1912; and, as the average results of two or more seasons' work in experiments of any kind are of greater interest and value than those of a single season, it is gratifying to be privileged to submit, below, the *average yields from two years' fertilization of apple orchards*, as compared with the unfertilized plots left as checks for comparison. The figures given are the average from three different orchards situated at New Matamoras and Fleming, Washington county, and Torch Hill, Athens county. The figures given, moreover, are obtained from those plots (fertilized) where nitrogen in the form of nitrate of soda, either alone or combined with phosphorus and potassium in the form of acid phosphate, and muriate of potash, was used; and the cost of fertilization was based upon a *complete* fertilizer—one in which nitrogen, phosphorus and potassium were *all* supplied. Therefore the cost of fertilization is computed at the *maximum* of expense to the orchardist, no matter what extremity of soil poverty the orchard has attained.

HOW WERE THE FERTILIZING ELEMENTS APPLIED?

The commercial elements of fertility were applied by hand under the outer extremities of the branches of the trees, covering a circular area a little larger than the spread of the branches. The orchards in each case are in grass, and the trees mulched with straw. The fertilizers were applied on the surface or top of the mulch—the rains carrying the dissolved elements down into the soil where the tree roots were enabled to benefit by them. The quantities used, of each material, per tree, were: Nitrate of soda, 5 pounds; acid phosphate, 5 pounds; and muriate of potash, $2\frac{1}{2}$ pounds.

FERTILIZED PLOTS.

Average yield of apples per acre, per year, for the years of 1911 and 1912, 40 trees per acre.....	100 bbls.
Average yield of unfertilized plots, 1911 and 1912.....	44 "
Gain in yield per acre, per year.....	56 "
Cost of fertilization per acre, per year.....	\$10 00
Cost for increased yield, per acre, per year.....	00.178

WHAT ELEMENT HAS PROVED DEFICIENT?

As a matter of fact and interest it should be added that, so far, nitrogen has proved to be the element most deficient in the poor soils of the hill lands of southeastern Ohio. No apparent results have been obtained from the use of acid phosphate or muriate of potash, either alone or combined, at the end of the second season's production. However, these results should not suggest to the orchardist that it is safe to apply only nitrate of soda season after season. The growing of grain crops in these same sections of the state requires the application of phosphorus in the form of bone or acid phosphate, which is sufficient proof that phosphorus is in very limited supply in the soil. The deeper-feeding tree roots have the ability to obtain more phosphorus under the prevailing conditions of soil poverty than do the roots of grain plants; but, as the supply of phosphorus is evidently very limited, the trees stimulated to heavy fruit production by the application of nitrogen, will likely exhaust the limited supply of phosphorus within a very few seasons. Hence it is a wise plan to apply a complete fertilizer in practical orchard rejuvenation where there is an evident lack of fertility.

POTASH.

By E. E. SOMERMEIER,

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Potash is essential to vigorous plant growth, and complete plant nutrition requires the presence in the soil of potash in a form readily soluble in water and hence in a form available for the use of the plant.

HOW IS AMOUNT OF POTASSIUM PRESENT IN A FERTILIZER ESTIMATED?

The common soluble salts of potassium are potassium chloride, potassium sulphate and potassium carbonate. In estimating the amount of potassium present in a fertilizer it is customary to estimate it as being present in the form of potash which is the oxide (K_2O) and which contains about 83 per cent. of actual potassium. In estimating the amount of potash equivalent to potassium in different forms the following values are convenient:

VALUES.

- (a) One hundred parts of potassium chloride contain the equivalent of 63.1 parts of potash or the equivalent of 52.5 parts of potassium.
- (b) One hundred parts of potassium sulphate contain the equivalent of 54.0 parts of potash or the equivalent of 44.8 parts of potassium.
- (c) One hundred parts of potassium carbonate contain the equivalent of 68.1 parts of potash or the equivalent of 56.5 parts of potassium.

WHERE IS POTASH FOUND?

Potash is a constituent of many common rocks and minerals, and most soils contain an abundance of potash which however is in many cases practically wholly in an insoluble form and hence of little or no value in plant growth. Ordinary granite often contains several per cent. of potash in the form of feldspar, an insoluble compound of potash, alumina and silica. Feldspar and rocks containing considerable percentages of potash are very common in various portions of the mountainous regions of the United States. In the aggregate these rocks contain the equivalent of many millions of tons of potash, which, however, from an agricultural standpoint is practically worthless, as the decomposition of such rocks by weathering is so slow (requiring very many thousands of years) that the amount of potash which becomes available during the life of the plant is practically infinitesimal.

WHY DOES THE GERMAN GOVERNMENT PRACTICALLY CONTROL THE POTASH SITUATION ?

Deposits of the soluble compounds of potash, the compounds valuable for agricultural purposes, are limited to comparatively few regions, and at the present time the main and in fact the only commercially developed deposits of potassium salts are found in Germany. The German government has a monopoly of the potash production, and all potash imported into this country is subject to a tax. The annual importation of potassium salts into this country is in the neighborhood of 1,200,000 tons, of an average potash content equivalent to 25 per cent. of potassium chloride or equivalent to 300,000 tons of pure potassium chloride. Every pound of this product is taxed by the German government, which tax is of course indirectly paid by the American farmer who uses the fertilizer. The amount of tax which the German government can levy upon potash compounds is limited merely by what that government thinks it can safely apply without seriously interfering with the sales of the material or without bringing into existence methods and means for obtaining a supply of potash from other sources. This condition of being practically at the mercy of the German government is not pleasant, either for the American farmer or for the United States government, and numerous plans and investigations have been considered and undertaken both by private individuals and by the United States government, looking toward the obtaining of a potash supply from sources which would make this country independent of the German supply. At least three sources are possible.

WHAT SOURCES AT OUR COMMAND TO OBTAIN SUPPLY OF POTASH IN THIS COUNTRY ?

- (1) Chemical treatment of the insoluble compounds of potash and the conversion of this potash into a soluble form.
- (2) Discovery and development of the deposits of soluble potash compounds in the desert regions of the western part of the United States.
- (3) Recovery of potash from sea weeds.

WHAT MATERIALS NOW CONTAIN INSOLUBLE COMPOUNDS OF POTASH ?

The obtaining of potash by chemical treatment of feldspars and rocks containing high percentages of potash is entirely feasible and the supply of raw material is practically inexhaustible. The only problem, but it is an important one, is to be able to produce the potash at a price low enough to compete with the price of the German supply. At the present time no commercial plants are in operation, but many well informed authorities express a faith in the ultimate commercial success of the method and believe that much of the potash in the coming century will be obtained in this way.

HAVE WE DEPOSITS OF SOLUBLE POTASH IN THE UNITED STATES?

Considerable deposits of potassium salts have already been discovered in the western part of the United States. At Searles Lake, California, a deposit estimated to contain from four to ten million tons of potash is being developed at the present time and doubtless new deposits will be discovered and developed in the near future.

WILL SEA WEEDS AFFORD ADEQUATE SUPPLY OF POTASH FOR ALL COMMERCIAL NEEDS?

The recovery of potash from sea weeds apparently affords the possibility of a supply adequate for all commercial needs. Off the coast of Southern California are extensive beds or groves of giant sea weed or kelp which when dried contain about 25 per cent. of potassium chloride. The extent of these kelp beds or groves has already been determined as being sufficient to supply on a conservative estimate an annual production of one million tons of potassium chloride or upwards of three times the amount annually used at present. This obtaining of potash from sea weed like the obtaining of potash from feldspar appears to be merely a question of being able to do so at a price which will make it commercially profitable. According to F. K. Cameron of the United States Department of Agriculture¹, a ton of dried kelp based on present values is worth about \$10.50. The estimated cost of harvesting and drying a ton of kelp if done on a commercial scale is estimated at \$2.70, leaving a margin of \$7.80 per ton to cover freight charges, cost of sacking, profit, etc., from which it appears that the early development of this industry on a commercial scale may reasonably be expected.

SUMMARY.

Briefly summarized, the present potash condition is about as follows: The American farmer is dependent upon the German supply of potash. This supply is subject to a tax by the German government, which tax is paid by the farmers of the United States. Several other sources of supply are possible, and the possibility and probability of their development serves to limit the amount of tax which the German government can safely levy, and while this country for some years to come will undoubtedly pay tax on the bulk of the potash used, it does not appear that the tax will ever become so great as to make the price prohibitive, and the development of other sources of supply will undoubtedly enable the American farmer of the future to obtain potash on terms comparable with present prices.

¹Journal of Industrial and Engineering Chemistry, Vol. 4, p. 690.

THE COMPOSITION OF SOME MATERIALS USED IN THE MANUFACTURE OF FERTILIZERS.

The following table gives the percentages of phosphoric acid, potash, and nitrogen, and ammonia equivalent to the nitrogen, in a number of raw materials used in the manufacture and compounding of fertilizers. The percentages given usually represent the average and in many cases individual samples will vary considerably from the figures given.

SOURCES OF AMMONIA AND PHOSPHORIC ACID.

	Nitrogen.	Ammonia equivalent to the ni- trogen.	Total Phos. Acid.	Soluble Potash.
Bone meal -----	3.70	4.50	22.	-----
Steamed bone -----	1.65	2.00	30.	-----
Dried blood -----	8—12	10—15	2.	-----
Dried fish -----	7.25	8.80	8.25	-----
Horn and hoof waste -----	13.25	16.09	1.83	-----
Cotton-seed meal -----	4.30	5.22	3.10	-----
Muck -----	1—2	1.	0.1	-----
Peat -----	2—2.5	2.43—3.0	0.1	-----
Slaughter-house tankage -----	5.8	6.10	10.5	-----
Garbage tankage -----	1.65—2.50	2.0—3.0	2—10	-----
Tobacco stems -----	2.35	2.85	0.7	8.2
Stable manure -----	0.5	0.6	0.3	0.6
Sulphate of ammonia -----	20.	24.3	-----	-----
Cyanamid -----	15—17	18—20	-----	-----
Nitrate of soda -----	15.6	19.	-----	-----
Castor Pomace -----	5.00	6.00	-----	-----

SOURCES OF PHOSPHORIC ACID.

Apatite -----	-----	-----	36.	-----
Raw phosphate rock -----	-----	-----	28—30	-----
Basic slag -----	-----	-----	19—23	-----
Bone black -----	-----	-----	28.	-----

SOURCES OF POTASH.

Muriate of potash -----	-----	-----	-----	51.
Sulphate of potash -----	-----	-----	-----	48.
Kainit -----	-----	-----	-----	13.
Sulphate of potash and magnesia -----	-----	-----	-----	30.
Wood ashes, unleached -----	-----	-----	1.70	5.25
Wood ashes, leached -----	-----	-----	1.50	1.27

FILLER OR MAKE-WEIGHT MATERIALS.

By E. E. SOMERMEIER,

Chemist, Ohio State University, Columbus, Ohio.

HIGH GRADE RAW MATERIAL.

Some of the principal raw materials of which high grade fertilizers are composed are as follows:

Sodium nitrate containing the equivalent of about 19% ammonia.

Dried blood containing the equivalent of 12-13% ammonia.

Tankage containing the equivalent of 9-11% and 15-20% bone phosphate (6.9-9.2% phosphoric acid).

Ground bone containing about 4% ammonia and 50% bone phosphate (22.9% phosphoric acid).

Steamed bone containing 1¼-3% ammonia and 50-60% bone phosphate (22.9-27.5% phosphoric acid).

Acid rock phosphate containing about 14% available phosphoric acid.

Sulphate of potash containing the equivalent of about 48% potash.

Muriate of potash containing the equivalent of about 50% potash.

For more complete list-see "Table of Composition," page 81 of this report.

A fertilizer made by simple mixture of these materials cannot help being relatively high in one or more of the fertilizer ingredients, ammonia, phosphoric acid and potash.

LOW GRADE FERTILIZERS.

In order to make low grade fertilizers as 1-8-2, 1-9-1 grades, etc., the manufacturer must put in a "filler" or "make-weight" material, or what amounts to the same thing, use lower grade raw materials. For example, a ton of 1-8-2 fertilizer may be made from the following amounts of materials:

	a	b	c
	Lbs.	Lbs.	Lbs.
Tankage (10% ammonia and 5% available phosphoric acid)---	200	----	----
Nitrate of soda (19% ammonia)-----	----	----	105
Acid phosphate (about 14% available phosphoric acid)-----	1,070	1,140	1,140
Sulphate of potash (48% potash)-----	84	84	84
Filler of sand, dirt, cinders, etc-----	646	----	671
Filler of peat (3% ammonia)-----	----	776	----
Total -----	2,000	2,000	2,000

Either mixture a, b or c contains 1% ammonia, 8% phosphoric acid and 2% potash.

HIGH GRADE FERTILIZERS.

A higher grade fertilizer, as 2-10-3 may be made from these materials as follows:

	a	b	c
	Lbs.	Lbs.	Lbs.
Tankage (10% ammonia, 5% available phosphoric acid)-----	400	----	----
Nitrate of soda (19% ammonia)-----	----	207	210
Acid phosphate (14% available phosphoric acid)-----	1,280	1,420	1,420
Sulphate of potash (48% potash)-----	126	126	126
Filler of peat (3% ammonia)-----	----	247	----
Filler of sand, cinders, dirt, etc.-----	194	----	244
Total -----	2,000	2,000	2,000

Either mixture a, b or c, contains 2% ammonia, 10% phosphoric acid and 3% potash.

A COMPARISON.

A comparison shows relatively much less filler or inert material necessary in the higher grade fertilizer, and such brands as 1-11-3, 2-10-6, 2-12-2, contain much less filler or make-weight material than such brands as 1-8-2, 1-9-1, 2-8-2.

EXPENSE OF MAKE-WEIGHT.

The sacking, freight and hauling expenses on this filler in most cases amounts to at least \$4.00 per ton, and every farmer will do well to ask himself the question, "Are sand, ground cinders, coal, dirt, limestone and peat worth this much to the farm?" Whether it is present as a part of low grade material or is added directly as a make-weight or filler the cost is essentially the same. In so far as sand, cinders, coal and dirt are concerned, unquestionably they are of little value. Ground limestone may be valuable for some soils but can be more safely purchased as such, rather than to take chances of it being the filler used. Peat contains humus and a portion of the nitrogen is available for plant food, but the nitrogen certainly is not nearly so valuable as nitrogen from bone or blood, and to pay \$4.00 per ton sacking and hauling on peat and dirt, and to pay for the fertilizer on the basis of 18 cents per pound for the ammonia equivalent to the nitrogen it contains, makes the peat cost the buyer about \$14.00 per ton on the farm. At this rate, allowing 20 pounds of dried peat per cubic foot, a peat bog of one foot thickness of compact peat costs over \$6,000 per acre by the time the peat is distributed on the farm. Ordinary dirt is likewise expensive as is shown by the following: Allowing 60 pounds of dry dirt per cubic foot, one foot in depth, if dried, sacked, shipped, hauled and distributed on the farm as a filler for fertilizer at a cost of \$4.00 per ton, amounts

to about \$5,000 per acre for each foot in depth of dirt taken. Does any one think these materials are worth this price to his land? If so, he should continue to buy the low grade fertilizers. If not, he should buy higher grade fertilizers and apply less per acre.

DESCRIPTION OF ELEMENTS.

Agricultural chemists of the world have found that plant growth requires three elements of food—nitrogen, phosphorus and potassium. If any of these three elements are lacking in the soil no plant can grow.

Nitrogen increases foliage and gives size to the plant. To do this it should be in the most available form. When your crop is yellow and does not grow to size it lacks nitrogen.

Phosphorus hastens maturity, and thus often gives size and plumpness to the grain—which makes the ears of corn and heads of wheat fill with plump and ripe kernels. When the plant grows rank and dark green and keeps on growing, but does not mature and produce grain, it lacks phosphorus.

Potassium is necessary for the formation of starch and sugar in plants.

Approved by Chas. E. Thorne.

IMPORTANT

ANALYSIS OF COMMERCIAL FERTILIZERS.

By N. W. LORD.

The analyses for a great many samples of fertilizers are given in this report. These analyses state the percentage of ammonia, of total phosphoric acid, available phosphoric acid, insoluble phosphoric acid, and actual potash. They designate whether the potash is present as muriate or as sulphate and a statement is made of the source of the phosphoric acid, whether animal, mineral or both.

It will be noticed that in adding up these various percentages the total amounts to much less than 100%. In other words, there is a large portion of the material unstated and unaccounted for in the analysis.

WHY?

Now why is it that the chemist only gives this partial analysis and what forms the rest of the fertilizer?

It is of course a matter of common knowledge that the only things in a fertilizer that gives it its value as a plant food are those reported, but this does not explain why they are only present in relatively small proportions, and their relation to the rest of the material.

To explain this the theme must be considered in detail.

AMMONIA.

Ammonia strictly speaking is a gas composed of two other gases—nitrogen and hydrogen. (It dissolves readily in water and this solution in water is what we know as ammonia or spirits of ammonia as we get it at any drug store.) Now ammonia can be prepared from a great many materials occurring in nature which contain nitrogen in proper forms. Among the substances from which ammonia could be prepared are bones, dried blood, tankage, nitrate of soda, sulphate of ammonia. These substances by proper treatment easily yield amounts of ammonia varying from a few per cent. up to as high as 19 to 20, according to the nature and purity of the substance. These materials are used in the preparation of fertilizers and the ammonia specified in the analysis is the amount of ammonia that could be prepared from the material used in the fertilizers. When put in the soil these materials yield for the use of the plants the equivalent of ammonia stated in the analysis.

SMALL PERCENTAGE.

Now it will be seen that in no case does the ammonia form more than a small percentage of the weight of the material put in to furnish it. The rest is carbon, hydrogen, oxygen and various mineral substances naturally associated in the substances, and, therefore, in no sense impurities and from which it could not be separated without converting it into a gaseous form incapable of practical use.

These various substances furnishing ammonia are commercially designated as ammoniates and their value is entirely dependent on the percentage of ammonia that they will furnish.

MAKING THE ANALYSIS.

In making the analysis the chemist separates the ammonia from a weighed portion of the material and then weighs or measures it and thus be able to state the exact percentage yielded. As the only part of the ammonia of use to the plant is the nitrogen and as it is the nitrogen

in the substance that forms ammonia, some chemists report only the nitrogen. One part of ammonia contains 14/17 parts of nitrogen and so by multiplying the percentage of ammonia by 14/17 the nitrogen is obtained.

PHOSPHORIC ACID.

Pure phosphoric acid is a white solid. It does not occur in nature in this form. It dissolves in water readily, forming an intensely sour solution. In this pure form it would be expensive to prepare and impractical to use on account of its corrosive and sticky nature, but like ammonia it occurs naturally in various substances, the most important sources being bones, certain rocks and minerals. In these substances it is combined naturally with lime or with iron or other substances which entirely change its physical nature but from which it can be separated with more or less ease by plants. However, the availability to the plant or the ease with which it can be extracted from the material by the plant is very different in different substances. By treating those substances in which it is less available with sulphuric acid its availability to the plant is very greatly increased.

AMOUNT.

Now the amount of phosphoric acid present in these natural substances is extremely variable. Natural bones contain about 20 to 25 per cent., the natural rock phosphates or minerals anywhere from 25 to 35 per cent., the rest of the material in these natural sources being principally lime and in the case of bones, organic matter like glue or gelatin, etc.

AMMONIUM CITRATE METHOD.

Now the chemists, as in the case of the ammonia, in analyzing these various materials or mixed fertilizers containing them, separate the phosphoric acid in some form in which it can be accurately weighed and in this way determine the amount of the total phosphoric acid present in its various sources. But the total percentage of the phosphoric acid is not always sufficient to determine its value. It is important to understand the degree of its availability to the plant. This is measured by the solubility of the phosphoric acid or the amount of it that will be dissolved from the fertilizer by a solution of ammonium citrate of a definite strength. The use of this solution has been authorized by chemists the world over as the best means of comparing the availability of the phosphoric acid in its different combinations. The percentage of phosphoric acid extracted in this way is called the available phosphoric acid. That not available and which is retained in the residue left behind after treat-

ment with this solution is called the insoluble phosphoric acid. It will remain in the soil for a very long time without the plants being able to get hold of it.

AMMONIUM CITRATE TEST WHEN NOT APPLIED.

This solution of ammonium citrate as a means of determining the available phosphoric acid is not of universal application. There are certain substances, particularly raw bone and "basic slag," imported from Germany and found in certain steel works, owing to their peculiar nature, in which the ammonium citrate is not a true test of the availability of the phosphoric acid. In these substances all of the phosphoric acid has been proved to be practically available to the plant, provided the material is finely ground and properly used, and hence in such cases the chemist states merely the total phosphoric acid, leaving its availability to be settled by the fact of its being present in the form of bone or of basic slag.

SOURCE OF PHOSPHORIC ACID.

It is for this reason that in giving the analysis of fertilizers, importance is attached to the source of the phosphoric acid, whether animal or mineral. Where the source is mineral, which means that the phosphoric acid is derived entirely from naturally occurring rock, the insoluble phosphoric acid is practically useless, being locked up so tightly by its combination with lime. Where the source of the phosphoric acid is bone, however, the phosphoric acid insoluble in the citrate of ammonia and present as bone is still to a large extent, though somewhat slowly available to the plant. The distinction is not important as regards basic slags, because basic slags could not be economically mixed with acid rock or treated rocks, owing to the action of the acid upon the slag, and even if such an acid mixture were used the ammonium citrate method would more correctly test the slag after contact with the acid.

PRESENCE OF ANIMAL OR MINERAL MATTER, OR BOTH.

While it is possible for the chemist to detect with a microscope the presence of bone or similar organic sources of phosphoric acid in a mixture, it is a practical impossibility by chemical analysis alone to determine how much of the phosphoric acid is derived from bone and how much of it from the mineral substances, as there is no chemical difference between the two kinds of phosphoric acid, hence no attempt is made to make this distinction and the fertilizers are merely graded as to whether they contain bone alone, mineral matter alone, or a mixture of the two.

POTASH.

By actual potash is meant what the chemist would call potassium oxide, a white highly corrosive substance not occurring in nature in its pure state and not commercially obtainable, but as in the case of the other ingredients of fertilizers, it occurs naturally in many combinations with other substances, its principal source at present being the German potash salts, mined at Stassfurt, in which it is combined with chlorine or with sulphuric acid and mixed with more or less common salt and magnesia compounds. This combination containing chlorine and common salt is chemically known as containing potassium chloride or muriate. In certain other salts it occurs in combination with sulphuric acid, forming potassium sulphate.

PERCENTAGE PRESENT.

All of these materials are used in the composition of fertilizers and the chemist by separating it from the material in a weighable form determines the percentage of the potash present. The potash in these natural materials may be anywhere from 13% up to 50%, the rest being the chlorine or sulphuric acid necessary to hold the potash in a form in which it can be handled and the naturally occurring impurities of the minerals.

DIFFERENCE BETWEEN MURIATE AND SULPHATE OF POTASH.

The chemist in addition to weighing the amount of actual potash in the fertilizer then determines the percentage of chlorine present and if this is much or more than would naturally combine with the potash, it is designated as occurring as muriate. If there is not present a sufficient quantity to combine with the potash, but sulphuric acid is present, the potash is regarded as present as sulphate.

SOLUBLE POTASH.

Potash occurs naturally in certain minerals in shapes unavailable to the plant and of practically no value in the fertilizer. Potash of this character cannot be dissolved in water even on prolonged boiling, hence in testing fertilizers the chemist only extracts that potash which is soluble in water, neglecting and not reporting any potash that is not so soluble.

SUBSTANCES REPRESENTING MATERIAL.

It will be seen from the above that all fertilizers contain in addition to the phosphoric acid, ammonia and potash reported by the chemist, a large amount of material present and representing the substances in which these fertilizing materials naturally occur.

“MAKE-WEIGHTS.”

In addition to these materials many fertilizers contain additions introduced by the manufacture either as “make-weights” or for the purpose of improving the fineness and dryness of the material. Of course the result of such additions is shown in the reduced percentages of the valuable ingredients. They increase the cost to the farmer by the freight paid on all this material, which has no value to the crop. This is the reason why fertilizers of low percentages of the analyzed ingredients are usually the most expensive to the farmer, even if actually bought at a comparatively low price per ton.

NECESSITY OF FERTILIZER ANALYSIS.

From the foregoing it is obvious that the value of the fertilizers can only be determined in one of two ways: either cheaply in the chemical laboratories or by the far more expensive method of trying it on a large scale in the field and the latter merely gives the total result without any knowledge as to what ingredients produced it. The chemical analysis can be made in a few days and furnishes all the information necessary to foretell the effect of the fertilizers, but the determination of these substances requires the special training, skill and apparatus of the chemist. Nothing in the appearance, odor or feel of a fertilizer can be depended on to give any indication as to whether it is a worthless mixture or one containing large percentages of valuable plant foods. Even the reputation which a fertilizer may have earned by crop experiments cannot replace the accurate knowledge given by the analysis, as it would only show what the material did last year and is no guarantee of what it will do this. Here is the great value of the analysis in that it is obtainable at once and gives in advance information by which the fertilizers may be purchased or used.

VALUE OF FERTILIZER ANALYSES TO THE FARMER.

The analyses of fertilizer are valuable to the farmer not merely as a guarantee that he receives what he pays for when he purchases the article, but also as a valuable guide to him in knowing what fertilizers to apply to the soil. Fertilizers are added to supply the deficiencies in the soil of the three important ingredients, phosphoric acid, ammonia and potash. The amount needed of any one of these ingredients varies with the crop, certain crops needing an extra quantity of one or more of them. Fertilizers will not take the place of proper cultivation nor humus or organic matter in the soil, but they do supply material which in many cases cannot be obtained in any other way. In buying fertilizers the analyses should be consulted in order that the materials most needed may be added in the proper amount.

AMMONIA.

Ammonia is the most expensive by far of the three essentials. Ammonia can also be supplied to the soil by the proper use of clover, cow peas, soy beans and other similar crops. These plants get it from the air. Ammonia can be supplied by manure. Ammonia should only be purchased where farm sources are not properly available. Good farming in part consists in preserving and increasing the natural sources of ammonia on the farm by the use of manure and proper plants in rotation.

PHOSPHORIC ACID.

Phosphoric acid is needed on most Ohio soils. The amount in the soil cannot be increased by cropping. It usually pays to purchase it. It is especially needed by grain crops. Barnyard manure contains too little phosphoric acid. Its value is greatly increased by adding phosphate to it. Insoluble phosphoric acid like that in raw rock is made available to a considerable extent when mixed with manure, but it is not available alone.

POTASH.

Potash is taken from the soil by hay and straw more than by grain. It is not naturally deficient in most Ohio soils. It is particularly needed by some crops like potatoes and tobacco. Some dark "mucky" soils need it naturally. Selling straw, hay and fodder tends to exhaust the potash from soils.

WORN-OUT SOILS.

In building up worn-out soils complete fertilizers may be needed at first to get crops started, but the continued use of them when not accompanied by return of organic matter to the soil by manure or clover will leave the land in worse shape than in the beginning.

"LOOKS" OF THE PLANT.

The "looks" of the plants will often indicate what is lacking. Ammonia promotes growth, and weak plants and light green foliage often go with lack of it, provided other conditions are right for growth. Lack of phosphoric acid and potash will sometimes show in character of grain as well as yield. Continued use of superphosphate (acid rock) tends to soil acidity. This can be corrected by lime or ground limestone.

AMMONIA OR NITROGEN.

By E. E. SOMERMEIER,

Chemist, Ohio State University, Columbus, Ohio.

Of the three essential fertilizer materials, ammonia, phosphoric acid and potash, ammonia is by far the most expensive. As has been already stated under "Analyses of Fertilizers," it is a chemical compound consisting of three parts by weight of hydrogen and fourteen parts by weight of nitrogen. Nitrogen is the portion that is of use to the plant. Free nitrogen is a colorless, odorless gas. Four-fifths of the air we breathe is composed of nitrogen. Combined with hydrogen, as has already been stated, it forms ammonia, a colorless gas having a strong, penetrating odor and readily soluble in water. Solutions of ammonia in water are sold under a number of different names, as "ammonia," "stronger ammonia," "spirits of hartshorn," "ammonia water," etc. The ordinary ammonia sold at the drug store should contain about 10% by weight of actual ammonia. Ammonia unites readily with acids to form salts. A well-known property of acids is the sour, acid taste, as the sour taste of vinegar or of lemon juice, etc. Ammonia unites with the sour constituent of vinegar or of lemon juice to form a light colored salt readily soluble in water.

ORGANIC MATERIALS.

Many organic materials, as dried blood, bone, peat, humus, etc., contain nitrogen not in the form of ammonia but combined with other elements in complex and various forms. These different forms of nitrogen differ greatly from one another in their ready solubility in water and hence in their value for agricultural purposes, as the plant can use only that nitrogen which is soluble. Hence only those nitrogen carrying materials are of value to the farmer which contain the nitrogen in a soluble form or which contain it in such a form that it decomposes readily and becomes soluble in water within a reasonable period of time.

DETERMINING NITROGEN.

In determining the amount of nitrogen in a substance, as in dried blood, the chemist changes the nitrogen to ammonia and determines it in this form and in reporting the result he may report the sample as containing so many per cent. of ammonia, although the nitrogen may not have been actually present in the sample as ammonia. What is meant and what should be understood by the result for ammonia in this report, is that the sample contains nitrogen which if expressed as ammonia equals the percentage given under the heading of ammonia.

TERM AMMONIA INCLUDES ALL NITROGEN.

The use of the term ammonia to include all nitrogen in the sample is in everyday use in the trade. The market quotations for dried blood for example being given as follows: "Dried blood, 12 to 13% ammonia, \$3.00 per unit." This means that dried blood containing nitrogen equivalent to 12 or 13% of ammonia is selling at \$3.00 for each unit (20 pounds) of ammonia.

RELATION BY WEIGHT.

The relation by weight between nitrogen and ammonia is 14 to 17, and in any case if the result given in per cent. of nitrogen is desired as per cent. of ammonia it is obtained by multiplying the nitrogen percentage by $17/14$ or vice versa, if the result given as ammonia is wanted in terms of nitrogen, the per cent. of ammonia multiplied by $14/17$ gives the equivalent nitrogen, hence dried blood containing the equivalent of 12% ammonia might be stated as dried blood containing $14/17$ of 12—9.9% of nitrogen.

REQUIREMENT UNDER NEW LAW.

In recognition of the fact that all the nitrogen in fertilizers is not actually in the form of ammonia, and that the forms other than ammonia are not all equally valuable to the farmer, the Legislature enacted as a part of the fertilizer law a requirement that the manufacturer indicate the source of nitrogen in order that the purchaser may know whether or not he is buying nitrogen in a readily available form.

FORMS OF NITROGEN.

For purposes of further explanation and discussion these may be grouped into three classes.

(1) **NITROGEN AS NITRATES**, chiefly as sodium nitrate or Chili salt-petre. This salt contains approximately 16% of nitrogen corresponding to approximately 19% of ammonia. It is very readily soluble in water and hence quickly available to the plant for food.

(2) **NITROGEN IN THE FORM OF AMMONIA**, chiefly ammonium sulphate. This salt contains approximately 21% of nitrogen corresponding to about 25% of ammonia. Like sodium nitrate it is quickly soluble in water and is readily available to the plant for food.

(3) **NITROGEN IN ORGANIC FORMS**. As has already been stated, different organic materials from which nitrogen is derived differ very greatly in respect to the nitrogen availability. In some the nitrogen is

soluble in water or the compound decomposes quickly and the greater part of the nitrogen becomes soluble, while in others the nitrogen remains almost wholly insoluble, and hence largely inert and worthless in so far as having any fertilizing value.

SOURCES OF HIGH AVAILABLE NITROGEN.

Some of the most important sources of high (or quickly) available nitrogen are as follows: bone, dried blood, slaughter-house tankage, dried fish, cotton-seed meal, Peruvian guano.

SOURCES OF LOW AVAILABLE NITROGEN.

Some of the sources of low (or slowly) available nitrogen are as follows: peat, muck, untreated wool waste, sheep manure, garbage tankage.

LABORATORY METHODS.

A number of laboratory methods have been proposed to determine the relative value of the nitrogen in these different materials, the results obtained by these methods being compared with the results obtained by crop tests. The laboratory methods for determining the solubility of organic nitrogen most used are known as the alkaline permanganate method, the neutral permanganate and the pepsin hydrochloric acid method. The alkaline method has been adopted by New York, New Jersey and the New England states, while a number of the southern states use the neutral method.

LABORATORY TESTS INDEX OF AVAILABILITY OF NITROGEN.

The details of these laboratory tests are of no special interest to the purchaser of fertilizers but the results obtained are of very direct interest. The results obtained by the laboratory tests are an index of the availability of the nitrogen for plant food as shown by crop tests and hence the laboratory results serve as an index of the real value to the purchaser of the nitrogen in different materials. Some values are as follows:

<i>Material.</i>	<i>Solubility of organic nitrogen by neutral permanganate method.¹</i>
Dried blood -----	95.6
Cottonseed meal -----	95.1
Ground bone -----	93.6
Dried fish -----	96.4
Tankage -----	95.1
Garbage tankage -----	58.9
Peat -----	42.8

¹Street, Journal of Industrial and Engineering Chemistry, July, 1910.

With ammonia worth 17 or 18 cents per pound it behooves the farmer to know whether he is paying for ammonia (nitrogen) which the crops can use or whether he is buying it in the form of peat, muck, etc., in which most of it is not available. When buying, a safe motto is, "Buy high grade fertilizers" and avoid chances of paying for ammonia (nitrogen) from a large amount of peat and muck filler and also save the freight, hauling and sacking expenses on several hundred pounds of material, the value of which to say the least is questionable.

PRESERVE NATURAL SOURCES OF AMMONIA.

In addition to the use of nitrogen (ammonia) in the form of commercial fertilizers it can and should be supplied to the soil by means of clover, cow peas, soy beans and other similar crops. These plants are able to take the nitrogen from the air and change it into forms available for plant food. Barnyard manure contains an appreciable amount of ammonia in a readily soluble form and hence quickly available for use. However, this ready solubility often is the cause of the farmer losing many dollars' worth of fertilizing materials by allowing this soluble portion of the manure to be wasted and hence allowing the waste of the most valuable ingredient—the ammonia. Good farming in part consists in preserving the natural sources of ammonia on the farm by saving and use of manure and the growth of proper plants in rotation and nitrogen (ammonia) should only be purchased on a farm in the form of commercial fertilizers where farm sources are insufficient or are not properly available.

VALUATIONS OF COMMERCIAL FERTILIZERS.

(N. B.—Please preserve this article.)

Not for use in 1914.

The valuations attached to fertilizer analyses are intended to represent the cost of the phosphoric acid, potash and ammonia they contain, delivered at Columbus in the raw materials furnishing them plus an allowance of 25 per cent. to cover the mixing of the material and the profit of the manufacturer. Sacking or bagging is not included. This item will mean an additional cost of from \$1.50 to \$1.80 a ton. The cost of the fertilizer elements in the crude materials is estimated as follows: To the average wholesale price for the season as obtained from trade quotations at Chicago and New York, is added the freight for a carload lot to Columbus. From the prices so obtained the cost of a unit of the material

is figured by dividing the cost by the number of units or per cents. which the material contains. This gives the cost per unit at Columbus.

One unit is one per cent. of one ton, or twenty pounds of the substance. Where several materials are used the average price per unit is taken as the basis of valuation. In fixing the valuation to be used in the calculation of the values of mixed fertilizers, 25 per cent. is added to this cost for profit, mixing and distribution.

AMMONIA.

In obtaining the following values, the nitrate of soda f. o. b. New York was taken at \$2.41 a hundred pounds. Dried blood at \$2.64 per unit f. o. b. Chicago, and tankage at \$2.33 per unit ammonia and ten cents per unit bone phosphate. These give the average cost of ammonia at \$2.73 per unit f. o. b. Columbus. Rock phosphate, basis of 14 per cent. available, New York rate 50 cents a unit, is equivalent to 79 cents per unit f. o. b. Columbus.

POTASH.

Sulphate of potash, 90% basis. This would contain 48.7 per cent. actual potash. New York quotations \$2.33 per hundred. Cost per unit in Columbus of actual potash \$1.05.

Muriate of potash, basis 80 per cent., New York quotations \$1.92 per hundred. Actual potash in 80 per cent. muriate 50.5 per cent. Cost per unit f. o. b. Columbus 84 cents.

PHOSPHORIC ACID.

The cost of phosphoric acid in bone was estimated as follows: The ground bone, f. o. b. Columbus, on the basis of four per cent. ammonia and 50 per cent. bone phosphate was taken at \$24.50. Calculating the ammonia at \$2.73 a unit leaves \$13.58 for the phosphoric acid. Fifty per cent. bone phosphate is equivalent to 22.9 per cent. phosphoric acid. This would make the phosphoric acid in bone 60 cents a unit.

The value of the phosphoric acid in bone increases with the fineness. In computing the values of bones a difference of 25 per cent. is made between the phosphoric acid in fine bone and the phosphoric acid in medium bone. Adjusting this to an average of 70 per cent. fine gives for the phosphoric acid in medium bone 49 cents per unit and for fine bone 65 cents per unit.

Where acidulated goods are derived wholly from animal matter, it is assumed that the insoluble acid has the same value as that in medium

bone. Where goods consist of mixed animal and mineral matter the insoluble acid is valued at one-half the price of medium bone.

Adding to the foregoing values 25 per cent. we have the following table of valuations:

	Cost of raw material per unit.	With 25% added cost in mixed goods.	Value per pound. Cents.
Ammonia	\$2.73	\$3.41	17.0+
Available phosphoric acid.....	0.79	0.99	5.0+
Actual potash in sulphate or carbonate.....	1.05	1.31	6.5+
Actual potash in muriate.....	0.84	1.05	5.2+
Phosphoric acid in fine bone.....	0.65	0.81	4.0+
Phosphoric acid in medium bone.....	0.49	0.61	3.0+
Insoluble phosphoric acid in animal and mineral mixture..	0.24	0.31	1.5+

To the value of the fertilizer calculated from these figures, the cost of sacking should be added, amounting to \$1.60 a ton.

VALUATION TABLE USED FOR BRANDS OF COMMERCIAL FERTILIZERS LICENSED DURING 1913.

NOTE:—"Unit" is a trade expression. "Unit" equals twenty pounds of commercial fertilizer ingredients. "Unit" means one per centum of a ton. For example: For market quotations, ammonia is priced at 17.0+cents per pound. Then twenty times 17.0 cents gives price of a "unit" at \$3.41.

In Table No. 1, which follows, the valuation of mixed fertilizers including acid rock and potash, also bone treated with acid or mixed with rock, or in some other way altered from pure bone, are given, based on the following prices per unit and per pound for the ingredients named.

Pure untreated bone in Table 2. Treated or altered bone in Table 1.

TABLE No. 1—MIXED FERTILIZERS.

Ammonia, \$3.41 per unit, or 17.0 cents per pound.
Available phosphoric acid, \$0.99 per unit or 5.0 cents per pound.
Insoluble phosphoric acid, wholly mineral, no value.
Insoluble phosphoric acid, in mixed animal and mineral, 31 cents per unit or 1.5 cents per pound.

Insoluble phosphoric acid in bone, 61 cents per unit or 3.0 cents per pound.

NOTE:—Where manufacturers only claim total phosphoric acid in treated bones, the calculation of the value from their claims is made as in case of Bones in Table No. 2.

Potash (actual) from sulphate or carbonate, \$1.31 per unit or 6.5 cents per pound.

Potash (actual) from muriate, \$1.05 per unit or 5.2 cents per pound.

In Table No. 2 are given values of untreated bones, which are computed from the following prices:

TABLE No. 2—BONES.

Ammonia, \$3.41 per unit, or 17.0 cents per pound.
Phosphoric acid in "fine" bone, 81 cents per unit, or 4.0 cents per pound.
Phosphoric acid in "medium" bone, 61 cents per unit, or 3.0 cents per pound.
Total phosphoric acid in bone where "fineness" not given, 75 cents per unit, or 3.7 cents per pound.

Potash, if found present, valued same as in Table No. 1.

In Table No. 3 are given values of the unmixed fertilizing materials, viz., potash salts, nitrate of soda, sulphate of ammonia, dried blood, tankage, raw rock, bone black, ashes, etc.

These materials are used in the manufacture of mixed fertilizers. The values given are calculated from the average price for these ma-

terials, f. o. b. Columbus, and are as follows for the fertilizing ingredients:

TABLE No. 3—FERTILIZING MATERIALS—UNMIXED.

Ammonia, \$2.73 per unit, or 13.6 cents per pound.

Total phosphoric acid in bone (untreated) 60 cents per unit, or 3.0 cents per pound.

Potash (actual) from sulphate or carbonate, \$1.05 per unit, or 5.2 cents per pound.

Potash (actual) from muriate, 84 cents per unit, or 4.2 cents per pound.

Total phosphoric acid in raw rock or untreated bone black, 0.28 cents per unit, or 1.4 cents per pound.

When these substances are purchased in mixed fertilizers the cost price for the fertilizing ingredients is 25 per cent. greater, not including sacking, which will amount to about \$1.60 a ton.

MARKET QUOTATIONS, 1913.

Valuations of fertilizer brands based on values of the material used at the average prices for 1912. This is not given with the guarantee that farmers can, under all conditions, purchase fertilizers at these prices, but consider it a fair guide.

Last year's standard of valuations adopted, in order that identical analyses would not show different valuations in the bulletins published. Claims of manufacturers are figured; also the amount of findings of our chemist. These are calculated on the values given in the table and will serve as ready reference, showing the difference in dollars and cents between claims and findings.

However, for those desiring to figure claims on the average market prices for 1913, we give below by month, quotations at which the various raw materials could be purchased.

March 1st.

Based on the market quotations of March 1st, 1913, the values of the different ingredients per unit of twenty pounds are as follows:

Ammonia	\$3.61
Available Phosphoric Acid.....	0.99
Actual Potash from sulphate.....	1.30
Actual Potash from Muriate.....	1.05
Phosphoric Acid in fine bone.....	0.75
Phosphoric Acid in medium bone.....	0.57
Insoluble Phosphoric Acid in animal and mineral mixture.....	0.29

Expressed in values per pound these values are as follows :

Ammonia	18.0 cents
Available Phosphoric Acid.....	5.0 "
Actual potash from sulphate.....	6.5 "
Actual potash from muriate.....	5.3 "
Phosphoric Acid in fine bone.....	3.8 "
Phosphoric Acid in medium bone.....	2.8 "
Insoluble Phosphoric Acid in animal and mineral mixture.....	1.5 "

April 1st and May 1st.

Market quotations for fertilizing materials April 1st and May 1st practically the same as those reported March 1st.

June 1st.

Prices to June 1st held steady and were the same as those given March 1st, April 1st and May 1st.

July 1st.

During June there was an increase of ten cents per unit in the price of dried blood; an increase of five cents per unit in the price of tankage, and a decrease of twelve and one-half cents per one hundred pounds in the price of nitrate of soda. Prices of phosphates and potash materials remained unchanged. Increase in the value of dried blood and tankage, and decrease in the value of nitrate of soda about neutralizes one another, so that it might be stated that the value of the raw materials for July 1st are essentially the same as those given for previous months.

August, September, October 1st.

The market quotations for fertilizer materials for August 1st, September 1st and October 1st are practically the same as for July 1st.

November 1st.

During the month of October there was an increase of ten cents per unit in the price of ammonia in dried blood, and an increase of five cents per unit in the price of ammonia in tankage. Since March 1st there has been a decrease of twenty-five cents per hundred pounds in the price of nitrate of soda and a decrease of three cents per hundred pounds in the price of muriate of potash and a decrease of five cents per unit in the price of rock phosphate.

Based on the quotations for November 1st, the present values per

unit for fertilizer ingredients with an allowance of 25% for mixing are as follows:

Ammonia	\$3.50
Available Phosphoric Acid.....	0.92
Actual Potash from Sulphate.....	1.30
Actual Potash from Muriate.....	1.04
Phosphoric Acid in Fine Bone.....	0.78
Phosphoric Acid in Medium Bone.....	0.58
Insoluble Phosphoric Acid in animal and mineral mixture.....	0.30

Expressed in values per pound these values are as follows:

Ammonia	17.5 cents
Available Phosphoric Acid.....	4.6 "
Actual Potash from Sulphate.....	6.5 "
Actual Potash from Muriate.....	5.2 "
Phosphoric Acid in Fine Bone.....	3.9 "
Phosphoric Acid in Medium Bone.....	2.9 "
Insoluble Phosphoric Acid in animal and mineral mixture.....	1.5 "

TABULATED ANALYSES AND VALUATIONS OF COMMERCIAL FERTILIZERS.

Samples gathered during 1913.

All Analyses Made by Ohio State University Chemist, Columbus, Ohio. Samples Retested and Results Confirmed

TABLE I—MIXED FERTILIZERS.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.	Total Percent.			
ALLIANCE FERTILIZER CO., THE, ALLIANCE, OHIO.												
90	Gold Standard.....	1913. Claimed. Found.	1.00 1.00	3.41	8.00 9.30	9.21	1.00 0.99	0.31	9.00 10.29	4.00 4.53	15.84 17.69	90
91	Complete General Crop.....	Claimed. Found.	1.00 1.20	4.09	8.00 9.08	8.99	1.00 1.53	0.47	9.00 10.61	2.00 2.28	13.74 15.94	91
92	Phosphate and Potash.....	Claimed. Found.	----- -----	-----	9.00 9.08	8.89	r1.00 r0.57	-----	10.00 9.65	3.00 3.22	12.06 12.37	92
378	Potash Special.....	Claimed. Found.	----- -----	-----	10.00 11.92	11.80	r1.00 r0.70	-----	11.00 12.62	5.00 4.25	15.15 16.26	378
398	Potato and Truck Manure.....	Claimed. Found.	1.00 1.10	3.75	8.00 9.36	9.27	1.00 1.28	0.40	9.00 10.64	8.00 8.82	20.04 22.68	398

436	Old Reliable (Corn and Wheat Special).....	Claimed. Found.	2.00 2.20	7.50	9.00 9.39	9.00 9.30	a2.00 3.33	1.03	11.00 12.72	3.00 3.51	20.10 21.52	436
497	Raw Bone, Phosphate and Potash.....	Claimed. Found.	2.00 2.35	8.01	6.00 9.46	6.00 9.37	a8.00 7.36	2.28	14.00 16.82	3.00 3.28	20.79 23.10	497
611	Farmers' Friend Phosphate.....	Claimed. Found.	--- ---	---	14.00 15.48	15.33	r1.00 r0.57	---	15.00 16.05	---	13.86 15.33	611
AMERICAN AGRICULTURAL CHEMICAL CO., THE, NEW YORK AND CLEVELAND, OHIO.												
14	16% Acid Phosphate.....	Claimed. Found.	---	---	16.00 17.60	17.42	r0.50 r2.36	---	16.50 19.96	---	15.84 17.42	14
23	Ohio Vegetable Manure.....	Claimed. Found.	1.00 1.30	4.43	8.00 8.75	8.66	0.50 r1.34	---	8.50 10.09	7.00 8.19	18.84 21.69	23
35	Ohio Onion and Truck Manure.....	Claimed. Found.	2.00 2.25	7.67	8.00 8.73	8.64	0.50 1.98	---	8.50 10.71	10.00 11.62	25.40 29.12	35
96	Ground Bone.....	Claimed. Found.	3.00 3.00	10.23	10.05	9.95	a8.88	5.42	20.00 18.93	---	25.23 25.60	96
172	High Grade Potash Manure.....	Claimed. Found.	---	---	10.00 10.16	10.06	r0.50 r2.11	---	10.50 12.27	5.00 5.03	15.15 15.34	172
309	Sugar Beet Special.....	Claimed. Found.	1.00 1.25	4.26	8.00 9.85	9.75	0.50 1.46	---	8.50 11.31	4.00 4.20	15.69 18.87	309
348	Special Potash Mixture.....	Claimed. Found.	1.00 1.13	3.85	5.00 5.63	5.57	0.50 0.77	---	5.50 6.40	10.00 10.28	19.02 20.45	348
435	Park and Lawn Fertilizer.....	Claimed. Found.	4.00 4.18	14.25	8.00 8.63	8.54	0.50 1.34	0.42	8.50 9.97	7.00 7.82	29.07 31.42	435

* From sulphate.

a Wholly from animal matter. r Wholly from rock.
NOTE—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.					Total Percent.
AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK AND CLEVELAND, O. —Continued. Bradley's.												
		1913.										
36	Bradley's Soluble Dissolved Phosphate	Claimed. Found.	1.00 1.20	4.09	14.00 14.39	14.25	0.50 12.37	14.50 16.76			13.86 14.25	36
78	Bradley's Potato and Root Phosphate	Claimed. Found.	1.00 1.20	4.09	8.00 8.94	8.85	0.50 1.21	8.50 10.15	4.00 4.76	5.00	15.69 18.32	78
106	Bradley's Perfection Super-Phosphate	Claimed. Found.	2.00 2.20	7.50	8.00 8.30	8.22	0.50 1.79	8.50 10.09	5.00 5.90	6.20	20.15 22.47	106
122	Bradley's Alkaline Phosphate and Potash.	Claimed. Found.			10.00 10.54	10.43	0.50 1.92	10.50 12.46	2.00 2.66	2.79	12.00 13.22	122
283	Bradley's B. D. Sea Fowl Fertilizer	Claimed. Found.	2.00 2.25	7.67	10.00 10.17	10.07	0.50 2.23	10.50 12.40	2.00 2.71	2.85	18.98 21.28	283
310	Bradley's Corn and Wheat Phosphate	Claimed. Found.	1.00 1.20	4.09	8.00 8.82	8.73	0.50 1.15	8.50 9.97	2.00 2.62	2.75	13.59 15.93	310

354	Bradley's Complete Manure for Potatoes and Vegetables.....	Claimed. Found.	4.00 3.63	12.38 -----	8.00 8.12	----- 8.04	0.50 1.40	----- 0.43	8.50 9.52	7.00 6.59	----- 6.92	29.07 27.77	354
655	Bradley's Dissolved Phosphate with Potash....	Claimed. Found.	----- -----	----- -----	12.00 13.82	----- 13.68	r0.50 r1.21	----- -----	12.50 15.03	4.00 6.57	----- 6.90	16.08 20.58	655
Cleveland Dryer's.													
24	Cleveland Dryer's Potato, Tobacco and Gen- eral Crop Fertilizer.....	Claimed. Found.	1.00 1.30	----- 4.43	8.00 9.18	----- 9.09	0.50 r1.31	----- -----	8.50 10.49	4.00 5.13	----- 5.39	15.69 18.91	24
135	Cleveland Dryer's Horsehead Phosphate and Potash.....	Claimed. Found.	----- -----	----- -----	10.00 10.09	----- 9.99	r0.50 r1.92	----- -----	10.50 12.01	2.00 2.04	----- 2.14	12.00 12.13	135
142	Cleveland Dryer's Ohio Seed Maker with Potash.....	Claimed. Found.	2.00 2.15	----- 7.33	8.00 8.57	----- 8.48	0.50 1.79	----- 0.55	8.50 10.36	2.00 2.49	----- 2.61	17.00 18.97	142
143	Cleveland Dryer's Phospho Brand.....	Claimed. Found.	1.00 1.15	----- 3.92	8.00 8.98	----- 8.89	0.50 r1.05	----- -----	8.50 10.03	2.00 2.20	----- 2.31	13.59 15.12	143
188	Cleveland Dryer's XXX Phosphate.....	Claimed. Found.	----- -----	----- -----	14.00 15.00	----- 14.85	r0.50 r2.59	----- -----	14.50 17.59	----- -----	----- -----	13.86 14.85	188
308	Cleveland Dryer's XXX Phosphate and Potash	Claimed. Found.	----- -----	----- -----	12.00 12.41	----- 12.29	r0.50 r1.15	----- -----	12.50 13.56	4.00 3.80	----- 3.99	16.08 16.28	308
325	Cleveland Dryer's Grass and Grain Grower...	Claimed. Found.	2.00 2.25	----- 7.67	10.00 10.36	----- 10.26	0.50 1.72	----- 0.53	10.50 12.08	2.00 2.43	----- 2.55	18.98 21.01	325
349	Cleveland Dryer's Forest City Buckeye Ammo- niated Super-Phosphate.....	Claimed. Found.	3.00 3.30	----- 11.25	9.00 9.72	----- 9.62	0.50 1.98	----- 0.61	9.50 11.70	2.00 2.62	----- 2.75	21.40 24.23	349
Crocker's.													
192	Crocker's Ammoniated Wheat and Corn Phos- phate.....	Claimed. Found.	2.00 2.10	----- 7.16	10.00 10.12	----- 10.02	0.50 1.89	----- 0.59	10.50 12.01	2.00 2.22	----- 2.33	18.98 20.10	192

* From sulphate.

^a Wholly from animal matter. ^r Wholly from rock.
 Note—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.	
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.			
					Percent.	Value.	Percent.	Value.					
													Total Percent.
	AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK AND CLEVELAND, O. —Continued.	1913.											
193	Crocker's Harvest Jewel.....	Claimed. Found.	2.00 2.05	6.99	8.00 7.99	7.91	0.50 1.53	0.47	8.50 9.52	2.00 2.13	2.24	17.00 17.61	193
194	Crocker's Universal Grain Grower.....	Claimed. Found.	1.00 1.20	4.09	8.00 8.44	8.36	0.50 1.28	0.40	8.50 9.72	2.00 2.68	2.81	13.59 15.66	194
445	Crocker's Dissolved Phosphate.....	Claimed. Found.	— —	— —	14.00 15.86	15.70	r0.50 r1.79	— —	14.50 17.65	— —	— —	13.86 15.70	445
612	Crocker's Potato, Hop and Tobacco Phosphate	Claimed. Found.	2.00 2.10	7.16	8.00 7.99	7.91	0.50 1.88	0.58	8.50 9.87	5.00 5.95	6.25	20.15 21.90	612
	Farmers' Union.	1913.											
486	Farmers' Union Dissolved Phosphate.....	Claimed. Found.	— —	— —	14.00 14.42	14.28	r0.50 r1.76	— —	14.50 16.18	— —	— —	13.86 14.28	486

613	Farmers' Union Club and Grange Formula.....	Claimed. Found.	1.00 1.15	3.92	8.00 8.44	0.50 1.34	0.42	8.50 9.78	2.00 2.70	2.84	13.59 15.54	613
Great Eastern's.												
123	Great Eastern's Soluble Acid Phosphate and Potash.....	Claimed. Found.	-----	-----	10.00 11.00	r0.50 r2.43	-----	10.50 13.43	2.00 2.26	----- 2.37	12.00 13.26	123
132	Great Eastern's English Wheat Grower.....	Claimed. Found.	1.00 1.35	4.60	8.00 7.83	0.50 r2.17	-----	8.50 10.00	2.00 2.14	----- 2.25	13.59 14.60	132
133	Great Eastern's High Grade Acid Phosphate and Potash.....	Claimed. Found.	-----	-----	10.00 11.18	r0.50 r2.06	-----	10.50 13.23	5.00 5.39	----- 5.66	15.15 16.73	133
246	Great Eastern's Dissolved Acid Phosphate.....	Claimed. Found.	-----	-----	14.00 14.78	r0.50 r2.36	-----	14.50 17.14	-----	-----	13.86 14.63	246
247	Great Eastern's Unammoniated Wheat Special.....	Claimed. Found.	-----	-----	12.00 12.08	r0.50 r1.79	-----	12.50 13.87	-----	-----	11.88 11.96	247
355	Great Eastern's Vegetable, Vine and Tobacco.....	Claimed. Found.	2.50 2.55	8.70	8.00 7.89	0.50 1.50	0.47	8.50 9.39	3.00 4.28	----- 4.49	19.76 21.47	355
590	Great Eastern's Wheat Special.....	Claimed. Found.	2.00 2.45	8.35	8.00 9.58	r0.50 r2.56	-----	8.50 12.14	2.00 2.58	----- 2.71	16.84 20.54	590
614	Great Eastern's Corn Fertilizer.....	Claimed. Found.	1.00 1.23	4.19	8.00 9.21	0.50 r1.34	-----	8.50 10.55	4.00 4.80	----- 5.04	15.69 18.35	614
Michigan Carbon's.												
11	Michigan Carbon's Homestead Potato and Tobacco Fertilizer.....	Claimed. Found.	2.00 2.30	7.84	8.00 7.16	0.50 r2.74	-----	8.50 9.90	5.00 5.43	----- 5.70	20.15 20.63	11
12	Michigan Carbon's Homestead Vegetable Manure.....	Claimed. Found.	1.00 1.30	4.43	8.00 8.89	0.50 2.17	0.67	8.50 11.06	7.00 7.65	----- 8.03	18.84 21.93	12

* From sulphate.

^a Wholly from animal matter. ^r Wholly from rock.
 Note—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
	AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK AND CLEVELAND, O. —Continued.	1913.										
	Michigan Carbon's.—Concluded.											
13	Michigan Carbon's Homestead Grain and Root Fertilizer.....	Claimed. Found.	1.00 1.30	4.43	8.00 8.90	8.81	0.50 1.53	0.47	8.50 10.43	4.00 3.89	15.69 17.79	13
173	Michigan Carbon's Special Potash Fertilizer.....	Claimed. Found.	----- -----	-----	10.00 10.99	10.88	10.50 11.72	-----	10.50 12.71	5.00 4.16	15.15 15.25	173
200	Michigan Carbon's Homestead General Crop Fertilizer.....	Claimed. Found.	1.00 1.10	3.75	8.00 8.53	8.44	0.50 1.31	0.41	8.50 9.84	2.00 2.49	13.59 15.21	200
259	Michigan Carbon's Homestead Fertilizer.....	Claimed. Found.	2.00 2.20	7.50	10.00 10.15	10.05	0.50 1.92	0.60	10.50 12.07	2.00 2.40	18.98 20.67	259
260	Michigan Carbon's Homestead Potash Fertilizer.....	Claimed. Found.	1.00 1.10	3.75	5.00 5.89	5.83	0.50 1.02	0.32	5.50 6.91	10.00 10.85	19.02 21.29	260
261	Michigan Carbon's Red Line Phosphate with Potash.....	Claimed. Found.	----- -----	-----	10.00 9.99	9.89	10.50 11.50	-----	10.50 11.58	2.00 2.01	12.00 12.00	261

276	Michigan Carbon's Red Line Phosphate	Claimed. Found.	---	---	14.00 15.10	---	---	---	r0.50 r2.23	---	---	14.50 17.33	---	---	13.86 14.96	276
Milsom's.																
284	Milsom's Grain and Grass Fertilizer	Claimed. Found.	2.00 2.15	7.33	8.00 8.51	---	---	---	0.50 1.98	0.61	---	8.50 10.49	5.00 5.82	6.11	20.15 22.47	284
285	Milsom's Dissolved Phosphate and Potash	Claimed. Found.	---	---	10.00 10.32	10.22	---	---	r0.50 r2.17	---	---	10.50 12.49	2.00 2.31	2.43	12.00 12.56	285
311	Milsom's Wheat, Oats and Barley	Claimed. Found.	1.00 1.25	4.26	8.00 9.41	---	---	---	0.50 1.08	0.33	---	8.50 10.49	2.00 2.01	2.11	13.59 16.02	311
377	Milsom's Acid Phosphate	Claimed. Found.	---	---	14.00 15.86	15.70	---	---	r0.50 r1.92	---	---	14.50 17.78	---	---	13.86 15.70	377
615	Milsom's Buffalo Fertilizer	Claimed. Found.	2.00 2.30	7.84	10.00 10.93	10.82	---	---	0.50 1.92	0.60	---	10.50 12.85	2.00 2.57	2.70	18.98 21.96	615
616	Milsom's Buffalo Complete Manure	Claimed. Found.	1.00 2.20	7.50	8.00 10.45	10.35	---	---	0.50 1.82	0.56	---	8.50 12.27	4.00 2.18	---	15.92 20.70	616
Northwestern's.																
25	Northwestern's Horseshoe Challenge Vegetable Grower	Claimed. Found.	1.00 1.40	4.77	8.00 8.63	8.54	---	---	0.50 r1.34	---	---	8.50 9.97	7.00 7.53	7.91	18.84 21.22	25
26	Northwestern's Horseshoe Root and Cereal	Claimed. Found.	1.00 1.20	4.09	8.00 9.07	8.98	---	---	0.50 r1.08	---	---	8.50 10.15	4.00 4.61	4.84	15.69 17.91	26
174	Northwestern's Horseshoe Acidulated Phos- phate and Potash	Claimed. Found.	1.00 1.05	3.58	8.00 8.06	7.98	---	---	0.50 1.21	0.38	---	8.50 9.27	2.00 2.51	2.64	13.59 14.58	174
228	Northwestern's Horseshoe Potash Manure	Claimed. Found.	---	---	10.00 10.16	10.06	---	---	r0.50 r1.79	---	---	10.50 11.95	5.00 5.20	5.46	15.15 15.52	228

* From sulphate.

a Wholly from animal matter. r Wholly from rock.

NOTE—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
	AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK AND CLEVELAND, O. —Continued.	1913.										
	Northwestern's.—Concluded.											
334	Northwestern's Horseshoe Potato Grower.....	Claimed. Found.	2.00 1.95	6.65	8.00 8.31	8.23	0.50 1.85	0.57	8.50 10.16	5.00 5.26	20.15 20.97	334
350	Northwestern's Horseshoe Special Potash Manure.....	Claimed. Found.	1.00 1.15	3.92	5.00 6.15	6.09	0.50 1.02	0.32	5.50 7.17	10.00 10.51	19.02 21.37	350
356	Northwestern's Horseshoe Garden City Super-Phosphate.....	Claimed. Found.	2.00 2.30	7.84	10.00 10.68	10.57	0.50 1.46	0.46	10.50 12.14	2.00 2.87	18.98 21.87	356
357	Northwestern's Horseshoe Corn and Wheat Grower.....	Claimed. Found.	2.00 2.10	7.16	8.00 8.03	7.95	0.50 1.53	0.47	8.50 9.56	2.00 2.53	17.00 18.24	357
358	Northwestern's Horseshoe Dissolved Phosphate and Potash.....	Claimed. Found.	— —	—	10.00 11.19	11.08	0.50 1.79	—	10.50 12.98	2.00 1.80	12.00 12.97	358
368	Northwestern's Horseshoe Soluble Phosphate.....	Claimed. Found.	— —	—	14.00 16.58	16.41	0.50 1.59	—	14.50 18.17	— —	13.86 16.41	368

457	Northwestern's Horseshoe Pure Ground Bone.	Claimed. Found.	3.00 3.15	10.74	13.69	13.55	a7.48	4.56	20.00 21.17	-----	-----	25.23 28.85	457
Pacific's.													
416	Pacific's Complete Manure.....	Claimed. Found.	2.00 2.25	7.67	8.00 9.47	----- 9.38	0.50 1.53	----- 0.47	8.50 11.00	5.00 5.73	----- 6.02	20.15 23.54	416
417	Pacific's Nobsque General Crop.....	Claimed. Found.	2.00 2.10	7.16	8.00 8.63	----- 8.54	0.50 1.79	----- 0.55	8.50 10.42	2.00 2.74	----- 2.88	17.00 19.13	417
418	Pacific's Potato Phosphate.....	Claimed. Found.	1.00 1.20	4.09	8.00 9.02	----- 8.93	0.50 1.21	----- 0.38	8.50 10.23	4.00 4.43	----- 4.65	15.69 18.05	418
Packer's Union													
184	Packer's Union Wheat, Oats and Clover.....	Claimed. Found.	----- -----	----- -----	10.00 10.50	----- 10.40	r0.50 r2.02	----- -----	10.50 12.52	2.00 2.24	----- 2.35	12.00 12.75	184
185	Packer's Union Superior Acid Phosphate.....	Claimed. Found.	----- -----	----- -----	14.00 16.44	----- 16.28	r0.50 r1.85	----- -----	14.50 18.29	----- -----	----- -----	13.86 16.28	185
187	Packer's Union American Wheat and Rye Grower.....	Claimed. Found.	1.00 1.25	4.26	8.00 8.59	----- 8.50	0.50 1.28	----- 0.40	8.50 9.87	2.00 2.24	----- 2.35	13.59 15.51	187
312	Packer's Union Universal Fertilizer.....	Claimed. Found.	1.00 1.10	3.75	8.00 8.50	----- 8.42	0.50 1.28	----- 0.40	8.50 9.78	4.00 4.59	----- 4.82	15.69 17.39	312
Quinnipiac's.													
144	Quinnipiac's Climax Phosphate.....	Claimed. Found.	2.00 2.00	6.82	8.00 7.93	----- 7.85	0.50 1.66	----- 0.51	8.50 9.59	2.00 2.84	----- 2.98	17.00 18.16	144
186	Quinnipiac's Soluble Dissolved Phosphate.....	Claimed. Found.	----- -----	----- -----	14.00 14.97	----- 14.82	r0.50 r2.30	----- -----	14.50 17.27	----- -----	----- -----	13.86 14.82	186

*From sulphate.

a Wholly from animal matter.
 r Wholly from rock.
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TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Percent.	Available.	Insoluble.	Total Percent.	Percent.	Value.		
	AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK AND CLEVELAND, O. —Continued.	1913.										
	Quinnipiac's.—Concluded.											
419	Quinnipiac's Dissolved Phosphate and Potash.	Claimed. Found.	10.00 10.74	10.63	10.50 11.53			10.50 12.27	2.00 2.03	12.00 12.76	419	
617	Quinnipiac's Special Potato.	Claimed. Found.	1.00 1.25	4.26	0.50 1.15			8.50 10.42	4.00 5.32	15.69 19.39	617	
	Read's.	1913.										
262	Read's Farmers' Friend.	Claimed. Found.	2.00 2.10	7.16	0.50 1.85			8.50 10.36	5.00 5.51	20.15 21.94	262	
579	Read's Gold Coin.	Claimed. Found.	2.00 2.20	7.50	0.50 1.72			8.50 9.97	2.00 2.97	17.00 19.32	579	
580	Read's Standard.	Claimed. Found.	1.00 1.25	4.26	0.50 1.46			8.50 10.03	4.00 4.57	15.69 17.99	580	

581	Read's Leader.....	Claimed. Found.	1.00 1.25	4.26	8.00	8.10	0.50	8.50 9.52	2.00 2.14	13.59 14.61	581
582	Read's Alkaline Phosphate.....	Claimed. Found.	----- -----	----- -----	10.00 9.65	9.55	r0.50 r1.66	10.50 11.31	2.00 2.60	12.00 12.28	582
583	Read's Acid Phosphate.....	Claimed. Found.	----- -----	----- -----	14.00 15.03	14.88	r0.50 r1.92	14.50 16.95	----- -----	13.86 14.88	583
	Wheeler's.	1913.									
62	Wheeler's High Grade Vegetable and Tobacco Fertilizer.....	Claimed. Found.	1.00 1.13	3.85	8.00 9.11	9.02	0.50 1.15	8.50 10.26	7.00 7.65	18.84 21.26	62
136	Wheeler's Peerless Acid Phosphate.....	Claimed. Found.	----- -----	----- -----	14.00 14.74	14.59	r0.50 r2.30	14.50 17.04	----- -----	13.86 14.59	136
408	Wheeler's Potato Manure.....	Claimed. Found.	2.50 2.60	8.87	8.00 9.27	9.18	0.50 1.92	8.50 11.19	3.00 4.05	19.76 22.90	408
453	Wheeler's Royal Corn and Wheat Grower.....	Claimed. Found.	1.00 1.10	3.75	8.00 7.99	7.91	0.50 r1.28	8.50 9.27	2.00 2.09	13.59 13.85	453
	Williams & Clark's.	1913.									
27	Williams & Clark's Americus Acorn Brand Acid Phosphate.....	Claimed. Found.	----- -----	----- -----	14.00 15.46	15.31	r0.50 r2.68	14.50 18.14	----- -----	13.86 15.31	27
195	Williams & Clark's Americus Prolific Crop Producer.....	Claimed. Found.	2.00 2.18	7.43	10.00 10.30	10.20	0.50 2.49	10.50 12.79	2.00 2.12	18.98 20.63	195
196	Williams & Clark's Americus Good Grower Potato Phosphate.....	Claimed. Found.	1.00 1.15	3.92	8.00 8.47	9.39	0.50 1.37	8.50 9.84	4.00 4.14	15.69 17.08	196
351	Williams & Clark's Americus Corn and Wheat Special.....	Claimed. Found.	1.00 1.05	3.58	8.00 8.76	8.67	0.50 1.02	8.50 9.78	2.00 2.39	13.59 15.08	351

*From sulphate.

r Wholly from rock.

a Wholly from animal matter.

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TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.	
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.			
					Percent.	Value.	Percent.	Value.					
													Total Percent.
	AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK AND CLEVELAND, O. —Concluded.	1913.											
	Williams & Clark's.—Concluded.												
421	Williams & Clark's Americus Dissolved Phosphate and Potash.	Claimed. Found.	— —	— —	10.00 10.92	— 10.81	r0.50 r1.66	— —	10.50 12.58	2.00 2.08	— 2.18	12.00 12.99	421
618	Williams & Clark's Americus Royal Phosphate	Claimed. Found.	2.00 2.05	6.99	8.00 7.93	7.85	0.50 1.59	— 0.49	8.50 9.52	2.00 2.08	— 2.18	17.00 17.51	618
	Zell's.	1913.											
248	Zell's Economizer.	Claimed. Found.	1.00 1.15	3.92	8.00 8.63	8.54	0.50 r1.21	— —	8.50 9.84	2.00 2.62	— 2.75	13.59 15.21	248
249	Zell's Electric Phosphate.	Claimed. Found.	— —	—	10.00 10.11	9.91	r0.50 r1.63	— —	10.50 11.64	2.00 2.01	— 2.11	12.00 12.02	249
529	Zell's T. & P. Super-Phosphate.	Claimed. Found.	— —	—	14.00 14.54	14.39	r0.50 r1.89	— —	14.50 16.43	— —	— —	13.86 14.39	529

AMERICAN AGRICULTURAL CHEMICAL CO., THE, CINCINNATI, O.													
Bowker Fertilizer Works.													
1913.													
79	Bowker's Harvest Queen.....	Claimed. Found.	1.00 1.20	4.09	8.00 8.88	8.79	0.50 1.28	0.40	8.50 10.16	2.00 2.60	2.73	13.59 1.60	79
101	Bowker's Black Diamond.....	Claimed. Found.	----- -----	----- -----	14.00 15.48	15.33	r0.50 r2.62	----- -----	14.50 18.10	----- -----	----- -----	13.86 15.33	101
178	Bowker's 10% Manure.....	Claimed. Found.	1.00 1.10	3.75	5.00 6.27	6.21	0.50 0.51	0.16	5.50 6.78	10.00 11.69	12.27	19.02 22.39	178
189	Bowker's Ideal Crop Grower.....	Claimed. Found.	1.00 1.18	4.02	8.00 8.94	8.85	0.50 1.15	0.36	8.50 10.09	4.00 4.42	4.64	15.69 17.87	189
190	Bowker's Tobacco Grower.....	Claimed. Found.	2.00 2.60	8.87	8.00 8.83	8.74	0.50 1.59	0.49	8.50 10.42	*5.00 *5.22	6.84	21.45 24.94	190
219	Bowker's Wheat and Oats Special.....	Claimed. Found.	----- -----	----- -----	10.00 10.43	10.33	r0.50 r2.36	----- -----	10.50 12.79	2.00 2.05	2.15	12.00 12.48	219
220	Bowker's Grain and Grass Grower.....	Claimed. Found.	2.00 2.25	7.67	8.00 8.56	8.47	0.50 1.09	0.34	8.50 9.65	2.00 2.53	2.66	17.00 19.14	220
333	Bowker's Potash Fertilizer.....	Claimed. Found.	----- -----	----- -----	10.00 11.16	11.05	r0.50 r1.69	----- -----	10.50 12.85	5.00 4.97	5.22	15.15 16.27	333
364	Bowker's Pure Ground Bone.....	Claimed. Found.	3.00 3.05	10.40	13.62	13.48	s7.42	4.53	20.00 21.04	----- -----	----- -----	25.23 28.41	364
365	Bowker's Ideal Grain Grower.....	Claimed. Found.	1.50 1.40	4.77	8.00 9.02	8.93	0.50 1.37	0.42	8.50 10.39	4.00 4.55	4.78	17.40 18.90	365
376	Bowker's 16% Acid Phosphate.....	Claimed. Found.	----- -----	----- -----	16.00 17.01	16.84	r0.50 r1.92	----- -----	16.50 18.93	----- -----	----- -----	15.84 16.84	376

* From sulphate.

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TABLE I—MIXED FERTILIZERS—Continued.

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			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
420	AMERICAN AGRICULTURAL CHEMICAL CO., THE, CINCINNATI, O.—Concluded. Bowker Fertilizer Works.—Concluded. Bowker's Acid Phosphate	1913. Claimed. Found.	1.00 1.35	4.60	12.00 16.22	16.06	r0.50 r1.69	12.50 17.91	3.00 4.53	4.76	11.88 16.06	420
491	Bowker's Pure Bone and Potash Mixture	Claimed. Found.	1.00 1.30	4.43	11.13 11.02		a6.84	4.17	18.00 17.97	2.00 2.18	20.06 24.55	491
496	Bowker's Sure Crop	Claimed. Found.	1.00 1.30	4.43	9.00 9.49	9.40	0.50 1.25	9.50 10.74	2.00 2.18	2.29	14.58 16.51	496
530	Bowker's High Grade Fertilizer	Claimed. Found.	3.00 3.40	11.59	8.00 10.01	9.91	r0.50 r0.96	8.50 10.97	*6.00 *6.51	8.53	26.17 30.03	530
321	AMERICAN FERTILIZER COMPANY, CHICAGO, ILL. "Union Brand" Complete Crop Grower	1913. Claimed. Found.	2.00 2.00	6.82	8.00 8.61	8.52	a1.50 1.08	9.50 9.69	2.00 2.33	2.45	17.76 18.12	321

322	"Union Brand" Corn and General Crop Grower	Claimed. Found.	1.00 0.75	2.56	8.00 9.77	1.00	9.67	a1.00 0.38	0.12	9.00 10.15	*4.00 *5.16	6.76	17.18 19.11	322
323	"Union Brand" Onion, Potato and Vegetable Grower	Claimed. Found.	2.00 2.10	7.16	8.00 9.27	2.00	9.18	a1.50 1.15	0.36	9.50 10.42	*7.00 *7.72	10.11	24.83 26.81	323
324	"Union Brand" Champion Phosphate and Potash	Claimed. Found.	---	---	10.00 9.77	---	9.67	r1.00 r0.32	---	11.00 10.09	5.00 5.22	5.48	15.15 15.15	324
369	"Union Brand" King's Favorite	Claimed. Found.	1.00 0.85	2.90	8.00 7.54	---	7.46	a1.00 0.70	0.22	9.00 8.24	3.00 3.56	3.74	15.09 14.32	369
374	"Union Brand" High Grade Phosphate and Potash	Claimed. Found.	---	---	10.00 11.22	---	11.11	r1.00 r0.70	---	11.00 11.92	2.00 2.28	2.39	12.00 13.50	374
ARMOUR FERTILIZER WORKS, CHICAGO, ILL.														
21	Armour's Ohio Special	Claimed. Found.	1.00 1.00	3.41	8.00 8.64	---	8.55	0.75 0.57	0.18	9.21	4.00 4.30	4.52	15.76 16.66	21
37	1-8-2 Fertilizer	Claimed. Found.	1.00 1.28	4.36	8.00 8.69	---	8.60	0.75 0.90	0.28	9.59	2.00 2.37	2.49	13.66 15.73	37
38	Fruit and Root Crop Special	Claimed. Found.	2.00 2.00	6.82	8.00 7.80	---	7.72	0.75 1.92	0.60	9.72	5.00 5.13	5.39	20.22 20.53	38
39	Star Phosphate	Claimed. Found.	---	---	14.00 13.91	---	13.77	r0.50 r0.26	---	14.17	---	---	13.86 13.77	39
40	Soluble Phosphate and Potash	Claimed. Found.	---	---	10.00 10.13	---	10.03	r0.50 r0.29	---	10.42	4.00 4.35	4.57	14.10 14.60	40
41	Bone, Potash and Phosphate	Claimed. Found.	1.00 1.20	4.09	13.00 12.19	---	12.07	5.25 6.87	2.13	19.06	4.00 2.82	2.96	22.11 21.25	41

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			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
420	AMERICAN AGRICULTURAL CHEMICAL CO., THE, CINCINNATI, O.—Concluded. Bowker Fertilizer Works.—Concluded. Bowker's Acid Phosphate-----	1913. Claimed. Found.	----- ----- -----	----- ----- -----	12.00 16.22	----- 16.06	----- -----	----- -----	----- -----	----- -----	11.88 16.06	420
491	Bowker's Pure Bone and Potash Mixture-----	Claimed. Found.	1.00 1.35	4.60	11.13	11.02	----- 4.17	----- -----	----- -----	3.00 4.53	20.06 24.55	491
496	Bowker's Sure Crop-----	Claimed. Found.	1.00 1.30	4.43	9.00 9.49	9.40	0.50 1.25	9.50 10.74	2.00 2.18	----- 2.29	14.58 16.51	496
530	Bowker's High Grade Fertilizer-----	Claimed. Found.	3.00 3.40	11.59	8.00 10.01	9.91	----- -----	8.50 10.97	*8.00 *6.51	----- 8.53	28.17 30.03	530
321	AMERICAN FERTILIZER COMPANY, CHICAGO, ILL. "Union Brand" Complete Crop Grower-----	1913. Claimed. Found.	2.00 2.00	6.82	8.00 8.61	8.52	----- 0.33	----- 9.69	2.00 2.33	----- 2.45	17.76 18.12	321

322	"Union Brand" Corn and General Crop Grower	Claimed. Found.	1.00 0.75	--- 2.56	8.00 9.77	--- 9.67	a1.00 0.38	--- 0.12	9.00 10.15	*4.00 *5.16	--- 6.76	17.18 19.11	322
323	"Union Brand" Onion, Potato and Vegetable Grower	Claimed. Found.	2.00 2.10	--- 7.16	8.00 9.27	--- 9.18	a1.50 1.15	--- 0.36	9.50 10.42	*7.00 *7.72	--- 10.11	24.83 26.81	323
324	"Union Brand" Champion Phosphate and Potash	Claimed. Found.	--- ---	--- ---	10.00 9.77	--- 9.67	r1.00 r0.32	--- ---	11.00 10.09	5.00 5.22	--- 5.48	15.15 15.15	324
369	"Union Brand" King's Favorite	Claimed. Found.	1.00 0.85	--- 2.90	8.00 7.54	--- 7.46	a1.00 0.70	--- 0.22	9.00 8.24	3.00 3.56	--- 3.74	15.09 14.32	369
374	"Union Brand" High Grade Phosphate and Potash	Claimed. Found.	--- ---	--- ---	10.00 11.22	--- 11.11	r1.00 r0.70	--- ---	11.00 11.92	2.00 2.28	--- 2.39	12.00 13.50	374
ARMOUR FERTILIZER WORKS, CHICAGO, ILL.													
21	Armour's Ohio Special	Claimed. Found.	1.00 1.00	--- 3.41	8.00 8.64	--- 8.55	0.75 0.57	--- 0.18	--- 9.21	4.00 4.30	--- 4.52	15.76 16.66	21
37	1-8-2 Fertilizer	Claimed. Found.	1.00 1.28	--- 4.36	8.00 8.69	--- 8.60	0.75 0.90	--- 0.28	--- 9.59	2.00 2.37	--- 2.49	13.66 15.73	37
38	Fruit and Root Crop Special	Claimed. Found.	2.00 2.00	--- 6.82	8.00 7.80	--- 7.72	0.75 1.92	--- 0.60	--- 9.72	5.00 5.13	--- 5.39	20.22 20.53	38
39	Star Phosphate	Claimed. Found.	--- ---	--- ---	14.00 13.91	--- 13.77	r0.50 r0.26	--- ---	--- 14.17	--- ---	--- ---	13.86 13.77	39
40	Soluble Phosphate and Potash	Claimed. Found.	--- ---	--- ---	10.00 10.13	--- 10.03	r0.50 r0.23	--- ---	--- 10.42	4.00 4.35	--- 4.57	14.10 14.60	40
41	Bone, Potash and Phosphate	Claimed. Found.	1.00 1.20	--- 4.09	13.00 12.19	--- 12.07	5.25 6.87	--- 2.13	--- 19.06	4.00 2.82	--- 2.96	22.11 21.25	41

***From sulphate.**

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			Percent.	Value.	Available.		Insoluble.		Percent.	Value.			
					Percent.	Value.	Percent.	Value.					
													Total Percent.
ARMOUR FERTILIZER WORKS, CHICAGO, ILL.—Concluded.													
58	1-5-10 Fertilizer	1913. Claimed. Found.	1.00 0.95	3.24	5.00 5.60	5.54	0.75 0.61	0.19	6.21	10.00 10.16	10.67	19.09 19.64	58
59	High Grade Potato	Claimed. Found.	2.00 2.10	7.16	8.00 8.19	8.11	0.75 1.59	0.49	9.78	10.00 10.54	11.07	25.47 26.83	59
83	16% Acid Phosphate	Claimed. Found.	— —	—	16.00 16.60	16.43	r0.50 r0.13	—	16.73	— —	—	15.84 16.43	83
84	12-5 Fertilizer	Claimed. Found.	— —	—	12.00 11.63	11.51	r0.50 r0.26	—	11.89	5.00 4.66	4.89	17.13 16.40	84
103	Ten-Five Brand	Claimed. Found.	— —	—	10.00 10.49	10.39	r0.50 r0.16	—	10.65	5.00 4.89	5.13	15.15 15.52	103
118	Banner Brand	Claimed. Found.	— —	—	10.00 10.04	9.94	r0.50 r0.32	—	10.36	8.00 7.80	8.19	18.30 18.13	118
127	Wheat, Corn and Oats Special	Claimed. Found.	1.00 1.00	3.41	9.00 8.95	8.86	0.75 0.77	0.24	9.72	1.00 1.13	1.24	13.60 13.75	127

128	Grain Grower.....	Claimed. Found.	2.00 1.80	6.14	8.00 8.60	8.51	0.75 1.40	0.43	10.00	2.00 2.03	2.13	17.07 17.21	128
137	Potash Trucker.....	Claimed. Found.	1.00 1.00	3.41	8.00 8.08	8.00	0.75 0.67	0.21	8.75	8.00 8.01	8.41	19.96 20.03	137
263	Crop Grower.....	Claimed. Found.	1.50 1.53	5.22	8.00 8.57	8.48	0.75 1.21	0.38	9.78	2.00 2.06	2.16	15.37 16.24	263
331	Phosphate and Potash.....	Claimed. Found.	---	---	10.00 9.58	9.48	r0.50 r0.57	---	---	2.00 2.16	2.27	12.00 11.75	331
332	U. S. Phosphate.....	Claimed. Found.	---	---	12.00 13.17	13.04	r0.50 r0.26	---	13.43	---	---	11.88 13.04	332
347	Roy's Soil Builder.....	Claimed. Found.	2.00 2.00	6.82	10.00 10.11	10.01	0.75 1.59	0.49	11.70	2.00 2.76	2.90	19.05 20.22	347
474	Bone, Blood and Potash.....	Claimed. Found.	5.00 4.03	13.74	8.00 9.97	9.87	a0.50 a3.90	2.38	13.87	7.00 *9.06	11.87	34.45 37.86	474
609	Ammoniated Bone with Potash.....	Claimed. Found.	3.00 3.15	10.74	6.00 6.65	6.58	a0.50 2.87	0.89	9.52	2.00 2.31	2.43	18.58 20.64	609
BARWELL, J. W., WAUKEGAN, ILL.													
619	Barwell's Plant Grower and Land Renovator.....	Claimed. Found.	6.10 12.93	44.09	5.25 2.63	2.60	a5.25 1.59	---	10.50 4.22	6.00 *8.07	---	37.06 57.75	619
BASH FERTILIZER & CHEMICAL COMPANY, FORT WAYNE, IND.													
197	Bashumus Two-Eight-Two.....	Claimed. Found.	2.00 2.30	7.84	8.00 8.44	8.36	1.00 0.64	---	9.00 9.08	2.00 2.48	---	17.15 19.00	197
198	Bashumus One-Eight-Four.....	Claimed. Found.	1.00 1.35	4.60	8.00 8.44	8.36	1.00 0.83	0.26	9.00 9.27	4.00 4.93	5.18	15.84 18.40	198

* From sulphate.

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TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
BASH FERTILIZER & CHEMICAL COMPANY, FORT WAYNE, IND.—Concluded.												
199	Bashumus Ten-Five.....	1913. Claimed. Found.	----- ----- -----	----- ----- -----	10.00 9.47 -----	9.38 ----- -----	r1.00 r0.38 -----	11.00 9.85 -----	5.00 5.88 6.17	----- ----- -----	15.15 15.55 199	
395	Bashumus One-Eight-Two.....	Claimed. Found.	1.00 1.45	4.94 -----	8.00 8.89	8.80 -----	1.00 0.44	9.00 9.33	2.00 2.24	2.35 -----	13.74 16.23 395	
585	Bashumus One-Eight-Ten.....	Claimed. Found.	1.00 1.25	4.26 -----	8.00 8.49	8.41 -----	1.00 0.90	9.00 9.39	10.00 10.47	10.99 -----	22.14 23.94 585	
665	Bashumus One-Eight-Five.....	Claimed. Found.	1.00 1.35	4.60 -----	8.00 9.83	9.73 -----	1.00 r0.32	9.00 10.15	5.00 4.86	5.10 -----	16.89 19.43 665	
BELL FERTILIZER WORKS, GEO. A., WHEELERSBURG, O.												
313	Bell's Complete.....	1913. Claimed. Found.	1.00 1.30	4.43 -----	10.00 10.11	10.01 -----	r1.00 1.72	11.00 11.83	2.00 2.22	2.33 -----	15.41 17.30 313	
506	Bell's Phosphate.....	Claimed. Found.	----- -----	----- -----	14.00 19.13	18.94 -----	r2.00 r0.70	16.00 19.83	----- -----	----- -----	13.86 18.94 506	

600	Half and Half.....	Claimed. Found.	2.00 5.53	12.00 10.61	4.16 10.50	1.29 14.77	18.70 30.65	600
602	Potato and Tobacco Special.....	Claimed. Found.	1.00 1.60	8.00 8.54	1.00 8.45	9.00 10.49	15.53 19.48	602
CANTON FERTILIZER & CHEMICAL CO., THE, CANTON, O. 1913.								
1	Peerless Corn, Wheat and Grass Grower.....	Claimed. Found.	1.00 1.10	8.00 8.22	0.67 8.14	0.21 8.89	13.13 14.48	1
72	Peerless Vegetable Grower.....	Claimed. Found.	1.50 1.55	8.00 8.37	0.90 8.29	0.28 9.27	20.39 22.24	72
73	Peerless Bone and Meat with Potash.....	Claimed. Found.	1.00 1.13	11.00 10.89	4.73 10.89	1.47 15.73	17.51 18.75	73
85	Peerless Dissolved Phosphate.....	Claimed. Found.	---	14.00 14.58	---	15.35	13.86 14.43	85
86	Peerless Potash Mixture.....	Claimed. Found.	---	10.00 10.68	10.38 10.57	11.06	15.15 16.18	86
274	Peerless Onion and Celery Grower.....	Claimed. Found.	2.00 1.90	8.00 8.77	0.44 8.68	0.14 9.21	25.24 26.25	274
275	Peerless Dissolved Phosphate with Potash.....	Claimed. Found.	---	10.00 9.89	9.79	10.15	12.00 11.77	275
282	Peerless Super-Phosphate.....	Claimed. Found.	2.00 1.80	8.00 7.92	0.96 7.84	0.30 8.88	16.84 16.55	282
0	Peerless Tobacco and Potato Special.....	Claimed. Found.	1.00 1.05	5.00 5.60	0.57 5.54	0.18 6.17	18.86 19.38	390
450	Peerless Ohio Grain and Truck Grower.....	Claimed. Found.	1.00 1.10	8.00 8.50	0.71 8.42	0.22 9.21	15.53 16.60	450

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TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Available.	Insoluble.		Total Percent.	Percent.	Value.		
657	CENTRAL CHEMICAL COMPANY, THE, HAGERSTOWN, MD.	1913. Claimed. Found.	---	---	16.00	---	---	---	---	---	15.84	657
			---	---	17.82	17.64	0.32	18.14	---	---	17.64	
116	CENTRAL MANUFACTURING COMPANY, LOCKLAND, O.	1913. Claimed. Found.	0.50	---	9.00	---	1.00	10.00	3.00	---	14.08	116
			0.80	2.73	9.47	9.38	1.59	11.06	3.68	3.80	16.46	
124	Equity Grain Favorite.....	Claimed. Found.	2.50	---	6.00	---	1.50	7.50	8.00	---	23.34	124
			2.40	8.18	7.48	7.41	1.98	9.46	8.59	9.02	25.22	
145	Equity High Grade Truck Food.....	Claimed. Found.	---	---	14.00	---	1.00	15.00	---	---	13.86	145
			---	---	11.83	11.71	1.40	13.23	---	---	11.71	
255	Equity Rock Phosphate.....	Claimed. Found.	1.00	---	8.00	---	1.00	9.00	4.00	---	15.84	255
			1.23	4.19	8.69	8.60	1.15	9.84	5.54	5.82	18.97	
	Equity Wheat Special.....	Claimed. Found.	---	---	---	---	---	---	---	---	---	
			---	---	---	---	---	---	---	---	---	

256	Equity Ohio Wonder.....	Claimed. Found.	----- -----	12.00 11.69	----- 11.57	r1.00 r0.96	----- -----	13.00 12.65	5.00 5.84	----- 6.13	17.13 17.70	256
257	Equity Pota-Bacco Special.....	Claimed. Found.	2.00 1.90	9.00 10.10	----- 10.00	1.50 1.85	----- 0.57	10.50 11.95	5.00 *5.13	----- 6.72	22.75 23.77	257
481	Equity Home Mixture.....	Claimed. Found.	2.50 2.40	8.00 9.18	----- 9.09	1.50 1.08	----- 0.33	9.50 10.26	3.00 3.26	----- 3.42	20.07 21.02	481
601	Equity Celery Special.....	Claimed. Found.	3.00 3.30	6.00 7.55	----- 7.47	2.00 2.17	----- 0.67	8.00 9.72	10.00 11.16	----- 11.72	27.29 31.11	601
635	Equity Crop Maker.....	Claimed. Found.	1.50 2.00	8.00 9.33	----- 9.24	1.00 1.34	----- 0.42	9.00 10.67	2.50 2.72	----- 2.86	15.98 19.34	635
CINCINNATI PHOSPHATE CO., THE, CINCINNATI, O.												
147	Grain and Grass Grower.....	Claimed. Found.	1.00 1.15	8.00 8.88	----- 8.79	1.00 0.90	----- 0.28	9.00 9.78	2.00 2.16	----- 2.27	13.74 15.26	147
148	Tobacco, Potato and Beet Grower.....	Claimed. Found.	1.00 1.05	8.00 9.59	----- 9.49	1.00 0.83	----- 0.26	9.00 10.42	4.00 3.87	----- 4.06	15.84 17.39	148
149	Bonus a Humus Phosphate.....	Claimed. Found.	0.50 0.70	12.00 13.36	----- 13.23	r1.00 r0.90	----- -----	13.00 14.26	----- -----	----- -----	13.59 15.62	149
222	Dissolved Phosphate and Potash.....	Claimed. Found.	----- -----	10.00 10.87	----- 10.76	r1.00 r0.64	----- -----	11.00 11.51	4.00 4.26	----- 4.47	14.10 15.23	222
235	Wheat Grower.....	Claimed. Found.	----- -----	14.00 15.02	----- 14.87	r1.00 r0.90	----- -----	15.00 15.92	----- -----	----- -----	13.86 14.87	235
236	Bone and Phosphate Mixture Wheat Special.....	Claimed. Found.	1.50 1.45	8.00 10.84	----- 10.73	a8.00 6.14	----- 1.90	16.00 16.98	2.00 2.78	----- 2.92	20.02 20.49	236
492	High Grade Manure.....	Claimed. Found.	1.50 1.50	8.00 8.82	----- 8.73	1.00 0.96	----- 0.30	9.00 9.78	2.50 2.78	----- 2.92	15.98 17.07	492

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TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.						Potash.		Total Value.	Record Number.
			Percent.	Value.	Available.		Insoluble.		Total Percent.	Percent.	Value.			
					Percent.	Value.	Percent.	Value.						
	DARLING & COMPANY, CHICAGO, ILL.	1913.												
1119	Darling's Sugar Beet and Root Grower-----	Claimed. Found.	2.00 2.00	6.82	8.00 9.21	9.12	2.00 1.92	0.60	10.00 11.13	5.00 5.47	20.61 22.28	119		
121	Darling's Phosphate and Potash-----	Claimed. Found.	----- -----	----- -----	10.00 11.77	11.65	1.72	----- -----	13.49	2.00 1.93	12.00 13.68	121		
134	Darling's High Grade Acid Phosphate-----	Claimed. Found.	----- -----	----- -----	14.00 15.68	15.52	1.72	----- -----	17.40	----- -----	13.86 15.52	134		
227	Darling's Sure Winner-----	Claimed. Found.	1.00 1.10	3.75	8.00 8.56	8.47	2.00 1.28	0.40	10.00 9.84	3.00 3.30	15.70 16.09	227		
258	Darling's Chicago Brand-----	Claimed. Found.	2.00 2.00	6.82	8.00 9.90	9.80	2.00 2.30	0.71	10.00 12.20	2.00 2.58	18.06 20.04	258		
335	Darling's General Crop-----	Claimed. Found.	1.00 1.20	4.09	8.00 8.38	8.30	2.00 1.59	0.49	10.00 9.97	6.00 5.74	18.85 18.91	335		
344	Darling's Big Potash-----	Claimed. Found.	1.50 1.80	6.14	8.00 8.32	8.24	2.00 2.17	0.67	10.00 10.49	10.00 10.58	24.76 26.16	344		

[illegible]

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a Wholly from animal matter.

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& Wholly from animal

a. Whole

TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.	
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.			
					Percent.	Value.	Percent.	Value.					
													Total Percent.
FARMERS' FERTILIZER CO., THE, COLUMBUS, O.													
42	Dissolved Phosphate and Potash.	1913. Claimed. Found.	----- ----- -----	----- ----- -----	10.00 9.85 -----	9.75 ----- -----	----- r1.15 -----	----- ----- -----	2.00 1.99 -----	----- 2.09 -----	12.00 11.84 42		
97	Farmer's Acid Phosphate	Claimed. Found.	----- ----- -----	----- ----- -----	14.00 15.16 -----	15.01 ----- -----	r1.15 ----- -----	----- ----- -----	----- ----- -----	----- ----- -----	13.86 15.01 97		
109	Reinforced Potash Manure.	Claimed. Found.	2.00 2.10	7.16	7.00 6.84	6.77	1.15	0.36	10.00 11.51	12.09	24.25 26.38	109	
110	Farmer's Special Potash Mixture	Claimed. Found.	----- ----- -----	----- ----- -----	10.00 11.06 -----	10.95 ----- -----	r0.77 ----- -----	----- ----- -----	5.00 4.53	4.76	15.15 15.71	110	
111	Farmer's "16"	Claimed. Found.	----- ----- -----	----- ----- -----	16.00 17.27	17.10	r1.21	----- ----- -----	----- ----- -----	----- ----- -----	15.84 17.10	111	
183	Farmers' Twelve-Five	Claimed. Found.	----- ----- -----	----- ----- -----	12.00 12.12	12.00	r1.79	----- ----- -----	5.00 4.41	4.63	17.13 16.63	183	
523	Universal Fertilizer	Claimed. Found.	1.00 1.06	3.58	8.00 8.53	8.44	1.50	0.47	2.00 2.39	2.51	13.43 15.00	523	

640	Potato, Onion, Tobacco and Truck Special.....	Claimed. Found.	1.00 1.05	3.58	6.00 6.52	6.45	1.31	0.41	7.83	8.00 9.70	10.19	17.75 20.63	640
FEDERAL CHEMICAL COMPANY, INC., LOUISVILLE, KY. 1913.													
467	Daybreak Standard Crop and Tobacco Grower	Claimed. Found.	1.00 1.10	3.75	8.00 8.77	8.68	4.15	1.29	12.92	4.00 3.87	4.06	15.53 17.78	467
468	Daybreak Vegetable and Tobacco Grower.....	Claimed. Found.	1.50 1.60	5.46	8.00 8.35	8.27	5.05	1.57	13.40	6.00 *6.18	8.10	20.90 23.40	468
591	Daybreak Special Manure.....	Claimed. Found.	1.00 1.25	4.26	10.00 10.49	10.39	3.64	1.13	14.13	2.00 3.48	3.65	15.41 19.43	591
592	Daybreak Royal Phosphate.....	Claimed. Found.	-----	-----	14.00 16.82	16.65	r2.56	-----	19.38	-----	-----	13.86 16.65	592
666	Daybreak Red Rooster Grain and Tobacco Grower.....	Claimed. Found.	1.00 1.00	3.41	8.00 9.28	9.19	6.33	1.96	15.61	2.00 *2.03	2.66	13.95 17.22	666
FERTILIZER CO. OF PARIS, ILL., PARIS, ILL. 1913.													
562	"Farmers' Friend Grain Grower".....	Claimed. Found.	4.00 5.90	20.12	10.00 8.00	7.92	6.00 7.73	2.40	16.00 15.73	-----	-----	25.40 30.44	562
FLOWER CITY PLANT FOOD CO., ROCHESTER, N. Y. 1913.													
641	Walker's Excelsior Plant Food.....	Claimed. Found.	12.00 9.20	31.37	12.00 9.96	9.86	r0.13	-----	10.09	11.00 11.30	11.87	64.35 53.10	641

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			Percent.	Value.	Percent.	Value.	Insoluble.	Total Percent.	Percent.	Value.		
	FOX CHEMICAL COMPANY (BRANCH OF FEDERAL CHEMICAL CO., INC.) LOUISVILLE, KY.	1913.										
569	Fox Potato and Tobacco Grower.....	Claimed. Found.	2.00 1.88	6.41	8.00 9.51	9.41	1.59	0.49	7.50 *5.95	7.79	24.57 24.10	569
570	Fox Formula.....	Claimed. Found.	1.00 1.00	3.41	11.00 11.73	11.61	2.08	0.64	3.00 3.61	3.79	17.45 19.45	570
571	Fox Wheat and Grain Special.....	Claimed. Found.	1.00 0.95	3.24	12.00 13.50	13.37	2.17	0.67	1.00 1.50	1.58	16.34 18.86	571
660	Red Fox Grain and Tobacco Special.....	Claimed. Found.	1.00 1.00	3.41	8.00 9.32	9.32	0.77	0.24	2.00 *1.95	2.55	13.95 15.43	660
	FRANK & SONS, L., ZANESVILLE, O.	1913.										
363	Potato Phosphate.....	Claimed. Found.	2.00 1.40	4.77	9.00 10.61	10.50	1.00 0.90	0.28	6.00 6.99	7.34	22.34 22.89	363
636	Century.....	Claimed. Found.	2.00 1.60	5.46	10.00 11.34	11.23	1.00 1.34	0.42	2.00 2.14	2.25	19.13 19.36	636

637	Anti Trust.....	Claimed. Found.	1.00 0.95	3.24	9.00 9.84	9.74	1.00 3.39	1.05	13.23	1.00 1.04	1.09	13.98 15.12	637
638	Ten Two.....	Claimed. Found.	---	---	10.00 10.43	10.33	r1.00 r0.70	---	11.13	2.00 2.00	2.10	12.00 12.43	638
639	Enterprise.....	Claimed. Found.	---	---	16.00 18.74	18.55	r1.00 r0.38	---	19.12	---	---	15.84 18.55	639
GLOBE FERTILIZER CO. (BRANCH OF FEDERAL CHEMICAL CO., INC.) LOUISVILLE, KY. 1913.													
550	Globe Vegetable Grower.....	Claimed. Found.	1.00 0.95	3.24	8.00 10.95	10.84	---	---	14.20	8.00 5.04	5.29	19.73 20.38	550
551	Universal Crop and Tobacco Grower.....	Claimed. Found.	1.00 1.10	3.75	8.00 8.65	8.56	5.35	1.66	14.00	4.00 *4.45	5.83	16.57 19.80	551
552	Progress Corn and Wheat Grower.....	Claimed. Found.	1.00 1.20	4.09	10.00 10.37	10.27	2.87	0.89	13.24	2.00 *2.26	2.96	15.93 18.21	552
553	Globe Gold Medal Mixture.....	Claimed. Found.	1.00 1.23	4.19	8.00 8.70	8.61	2.74	0.85	11.44	2.00 2.70	2.84	13.43 16.49	553
554	Globe Potash Special.....	Claimed. Found.	---	---	10.00 11.39	11.28	r2.68	---	14.07	2.00 1.95	2.05	12.00 13.33	554
555	Globe Corn and Wheat Special.....	Claimed. Found.	0.50 0.70	2.39	12.00 12.38	12.26	5.72	1.77	18.10	---	---	13.59 16.42	555
556	Globe Acid Phosphate.....	Claimed. Found.	---	---	14.00 16.25	16.09	r1.79	---	18.04	---	---	13.86 16.09	556
572	Braden Formula.....	Claimed. Found.	1.00 1.15	3.92	11.00 11.64	11.52	3.00	0.93	14.64	3.00 2.90	3.05	17.45 19.42	572

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151	Wheat and Oats.....	Claimed. Found.	---	---	10.00	r2.00	---	12.00	2.00	---	12.00	151
			---	---	10.89	r1.31	---	12.20	2.07	2.17	12.95	
303	10% Potash Fertilizer.....	Claimed. Found.	1.00	---	5.00	2.00	---	7.00	10.00	---	19.48	
			1.10	3.75	5.53	0.51	0.16	6.04	10.24	10.75	20.13	303
304	Monarch Brand.....	Claimed. Found.	---	---	14.00	r2.00	---	16.00	---	---	13.86	
			---	---	15.68	r1.08	---	16.76	---	---	15.52	304
458	Favorite Fertilizer.....	Claimed. Found.	2.00	---	8.00	2.00	---	10.00	2.00	---	17.46	
			2.00	6.82	8.44	1.28	0.40	9.72	2.37	2.49	18.07	458
459	Pure Ground Bone.....	Claimed. Found.	3.00	---	---	---	---	20.00	---	---	25.23	
			3.75	12.79	9.29	a12.33	7.52	21.62	---	---	29.51	459
546	Pure Bone and Potash Mixture.....	Claimed. Found.	1.00	---	---	---	---	20.00	5.00	---	23.66	
			2.10	7.16	10.44	a .01	5.50	19.45	7.74	8.13	31.13	546
HAMM CO., THE M., WASHINGTON C. H., O.												
15	Dissolved Phosphate.....	Claimed. Found.	---	---	16.00	r1.00	---	17.00	---	---	15.84	
			---	---	18.64	r0.90	---	19.54	---	---	18.45	15
16	Standard Phosphate.....	Claimed. Found.	---	---	14.00	r1.00	---	15.00	---	---	13.86	
			---	---	18.17	r1.92	---	20.09	---	---	17.99	16
175	Wheat Special.....	Claimed. Found.	---	---	18.00	r1.00	---	19.00	---	---	17.82	
			---	---	19.73	r0.74	---	20.47	---	---	19.53	175
280	General Crop.....	Claimed. Found.	1.00	---	8.00	1.00	---	9.00	2.00	---	13.74	
			1.60	5.46	8.30	3.84	1.19	12.14	2.41	2.53	17.40	280
281	Potash Special.....	Claimed. Found.	---	---	10.00	r1.00	---	11.00	5.00	---	15.15	
			---	---	11.32	r3.13	---	14.45	4.94	5.19	16.40	281
346	Truck Grower.....	Claimed. Found.	1.00	---	8.00	1.00	---	9.00	8.00	---	22.12	
			1.15	3.92	9.60	2.23	0.69	11.83	*8.01	10.49	24.60	346

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			Percent.	Value.	Available.		Insoluble.		Percent.	Value.			
					Percent.	Value.	Percent.	Value.					
													Total Percent.
HAMM CO., THE M., WASHINGTON C. H., O.—Concluded.													
511	Hamm's Special.....	1913. Claimed. Found.	2.00 2.35	8.01	10.00 11.83	11.71	3.00 2.81	0.87	13.00 14.64	3.00 3.41	3.58	20.80 24.17	511
512	Acidulated Special.....	Claimed. Found.	1.00 1.10	3.75	10.00 11.01	10.90	1.00 2.17	0.67	11.00 13.18	2.00 2.87	3.01	15.72 18.33	512
513	Corn and Tobacco.....	Claimed. Found.	----- -----	-----	14.00 16.38	16.22	r1.00 r1.82	-----	15.00 18.20	4.00 *4.84	6.34	19.10 22.56	513
622	Oats and Corn.....	Claimed. Found.	----- -----	-----	10.00 13.75	13.61	r1.00 r4.35	-----	11.00 18.10	2.00 2.58	2.71	12.00 16.32	622
HESS & BROTHER, INC., S. M., PHILADELPHIA, PA., AND CLEVELAND, O.													
273	High Grade Acid Phosphate.....	Claimed. Found.	----- -----	-----	14.00 15.80	15.64	1.50 r2.21	-----	15.50 18.01	----- -----	-----	14.33 15.64	273
422	Special Compound.....	Claimed. Found.	1.00 1.10	3.75	8.00 9.20	9.11	1.50 1.02	0.32	9.50 10.22	4.00 4.16	4.37	16.00 17.55	422

426	Keystone Phosphate.....	Claimed. Found.	1.00 1.15	3.92 ---	8.00 9.43	1.50 1.15	0.36 ---	9.50 10.58	2.00 2.62	2.75 ---	13.90 16.37	496
431	Soluble Phosphate and Potash.....	Claimed. Found.	---	---	10.00 10.45	1.50 r2.20	---	11.50 12.65	2.00 2.03	2.13 ---	12.47 12.48	431
525	Wheat and Grass Manure.....	Claimed. Found.	1.00 1.10	3.75 ---	8.00 8.63	1.50 r1.15	---	9.50 9.78	2.00 2.26	2.37 ---	13.90 14.66	525
584	Ammoniated Super-Phosphate.....	Claimed. Found.	2.00 2.25	7.67 ---	8.00 9.02	1.50 1.34	0.42 ---	9.50 10.36	2.00 2.51	2.64 ---	17.31 19.66	584
625	Special Corn Manure.....	Claimed. Found.	1.00 1.25	4.26 ---	8.00 8.75	1.50 1.40	0.43 ---	9.50 10.15	2.00 2.39	2.51 ---	13.90 15.86	625
643	Ground Bone.....	Claimed. Found.	3.00 3.30	11.25 ---	12.42 ---	as.62 ---	3.43 ---	20.00 18.04	---	---	25.23 26.98	643
658	Peerless Phosphate.....	Claimed. Found.	---	---	12.00 12.74	1.50 r1.46	---	13.50 14.20	4.00 5.45	5.72 ---	16.55 18.33	658
HIRSH, STEIN & COMPANY, CHICAGO, ILL.												
265	Calumet Brand Wheat, Corn and Oat Special.....	Claimed. Found.	1.00 1.25	4.26 ---	8.00 10.01	1.00 0.83	0.26 ---	9.00 10.84	4.00 *4.39	5.75 ---	16.88 20.18	265
266	Calumet Brand Phosphate and Potash.....	Claimed. Found.	---	---	10.00 10.54	1.00 r0.77	---	11.00 11.31	2.00 2.06	2.16 ---	12.31 12.59	266
267	Calumet Brand 10-10 Hummer Potash Phosphate.....	Claimed. Found.	---	---	10.00 10.94	1.00 r0.57	---	11.00 11.51	10.00 8.65	9.08 ---	20.71 19.91	267
294	Calumet Brand Grain Grower.....	Claimed. Found.	2.00 1.95	6.65 ---	8.00 9.97	1.00 0.83	0.26 ---	9.00 10.80	2.00 2.32	2.44 ---	17.15 19.12	294
295	Calumet Brand High Grade Phosphate and Potash.....	Claimed. Found.	1.00 ---	---	10.00 11.38	1.00 r0.70	---	11.00 12.08	5.00 4.70	4.94 ---	15.46 16.21	295

* From sulphate.

a Wholly from animal matter.

r Wholly from rock.

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TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
HIRSE, STEIN & COMPANY, CHICAGO, ILL.—Concluded.												
1913.												
381	Calumet Brand 14% Acid Phosphate.....	Claimed. Found.	----- -----	----- -----	14.00 17.01	----- 16.84	----- -----	15.00 17.91	----- -----	----- -----	13.86 16.84	381
400	Calumet Brand Special 10% Potash Manure...	Claimed. Found.	1.00 1.15	3.92	5.00 7.35	7.28	1.00 0.32	6.00 7.67	10.00 9.76	10.25	19.17 21.55	400
401	Calumet Brand Sure Growth Fertilizer.....	Claimed. Found.	1.00 1.00	3.41	8.00 9.14	9.05	1.00 1.15	9.00 10.29	2.00 2.62	2.75	13.74 15.57	401
437	Calumet Brand Potato, Tobacco and Beet Grower.....	Claimed. Found.	2.00 2.10	7.16	8.00 8.95	8.86	1.00 0.77	9.00 9.72	5.00 *4.80	6.29	21.60 22.55	437
644	Calumet Brand Special Potato, Tobacco and Onion Grower.....	Claimed. Found.	2.00 2.10	7.16	8.00 9.60	9.50	1.00 0.70	9.00 10.30	10.00 *10.78	14.12	28.15 31.00	644
645	Calumet Brand Extra Bone Meal.....	Claimed. Found.	2.43 2.80	9.55	14.92 14.92	14.77	12.01	28.00 26.93	----- -----	----- -----	29.29 31.55	645

HOLDEN, W. F., ASHTABULA, OHIO.		1913.									
372	Pure Animal Fertilizer.....	Claimed. Found.	2.50 4.85	16.54	10.50 11.39	11.28	a10.00 a4.73	2.89	20.50 16.12	25.03 30.71	372
INDEPENDENT PACKERS' FERTILIZING CO., THE, COLUMBUS, OHIO.		1913.									
53	Number Three—Corn, Wheat, Oats and Clover	Claimed. Found.	1.00 1.05	3.58	8.00 9.14	9.05	1.15	0.36	10.29	15.53 17.43	53
54	Number Six—Truck and Black Soil Special.....	Claimed. Found.	1.00 1.05	3.58	8.00 8.21	8.13	0.61	0.19	8.82	21.83 23.51	54
55	Number Nine—Soluble Phosphate.....	Claimed. Found.	----- -----	-----	14.00 14.91	14.76	r0.06	-----	14.97	13.86 14.76	55
75	Number Seven—Corn and Wheat Special.....	Claimed. Found.	1.00 1.20	4.09	8.00 8.31	8.23	1.02	0.32	9.33	13.43 15.74	75
141	Number Two—Bone Meal and Phosphate Mix- ture.....	Claimed. Found.	1.00 1.25	4.26	10.00 9.80	9.70	a6.00 8.11	2.51	16.00 17.91	20.12 20.27	141
176	Number Twelve—Grain Grower.....	Claimed. Found.	----- -----	-----	12.00 11.88	11.76	r0.26	-----	12.14	16.08 16.32	176
216	Number Four—Tobacco, Potato, Onion and Truck Special.....	Claimed. Found.	1.00 1.15	3.92	6.00 7.61	7.53	0.96	0.30	8.57	17.75 18.93	216
217	Number Five—Special Grain and Grass Grower	Claimed. Found.	2.00 1.70	5.80	8.00 9.47	9.38	1.72	0.53	11.19	16.84 18.37	217
218	Number Eight—Phosphate and Potash.....	Claimed. Found.	----- -----	-----	10.00 9.71	9.61	r0.26	-----	9.97	12.00 11.88	218

* From sulphate.

r Wholly from rock.

a Wholly from animal matter.

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TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
INDEPENDENT PACKERS' FERTILIZING CO., THE, COLUMBUS, Ohio—Concluded.												
1913.												
269	Number One—Independent Favorite.....	Claimed.	1.00	3.92	11.00	11.93	0.87	0.27	12.92	3.00	17.45	269
		Found.	1.15		12.05					3.51	19.81	
270	Special Sugar Beet Fertilizer.....	Claimed.	1.00		8.00	8.04	1.02	0.32	9.14	4.00	15.53	270
		Found.	1.00	3.41	8.12					4.55	16.55	
489	Number Eleven—High Grade Phosphate.....	Claimed.			16.00	16.03	r1.08		17.27		15.84	489
		Found.			16.19						16.03	
493	Number Ten—Potash Mixture.....	Claimed.			9.00	8.31	r0.77		9.16	5.00	14.16	493
		Found.			8.39					5.24	13.81	
INTERNATIONAL AGRICULTURAL CORPORATION (BUFFALO FERTILIZER WORKS), BUFFALO, N. Y., AND CINCINNATI, OHIO.												
1913.												
20	General Crop.....	Claimed.			9.00		r1.00		10.00	3.00	12.06	20
		Found.			10.29	10.19	r1.15		11.44	3.37	13.73	
49	Grain and Grass Grower.....	Claimed.	1.00	4.09	9.00	10.69	1.00		10.00	2.00	14.73	49
		Found.	1.20		10.80	10.69	1.85	0.57	12.65	2.32	17.79	

50	Farmers' Choice.....	Claimed. Found.	1.00 1.25	4.26	8.00 10.17	10.07	1.00 1.66	0.51	9.00 11.83	5.00 5.32	5.59	16.89 20.43	50
93	Dissolved Phosphate.....	Claimed. Found.	---	---	14.00 15.86	15.70	r1.00 r0.77	---	15.00 16.63	---	---	13.86 15.70	93
94	Buffalo Twelve-Four.....	Claimed. Found.	---	---	12.00 11.87	11.75	r1.00 r0.84	---	13.00 12.71	4.00 3.78	3.97	16.08 15.72	94
112	Celery and Potato Special.....	Claimed. Found.	2.00 2.00	6.82	8.00 9.02	8.93	1.00 2.36	---	9.00 11.38	10.00 9.83	---	25.55 26.80	112
125	16% Acid Phosphate.....	Claimed. Found.	---	---	16.00 17.46	17.29	r1.00 r0.96	---	17.00 18.42	---	---	15.84 17.29	125
158	Corn and Grain Grower.....	Claimed. Found.	---	---	10.00 10.61	10.50	r1.00 r0.90	---	11.00 11.51	5.00 5.22	5.48	15.15 15.98	158
209	Sugar Beet Champion.....	Claimed. Found.	1.00 1.15	3.92	8.00 8.70	8.61	1.00 1.53	0.47	9.00 10.23	4.00 4.02	4.22	15.84 17.22	209
210	Ideal Wheat and Corn.....	Claimed. Found.	2.00 2.05	6.99	9.00 9.46	9.37	1.00 2.87	0.89	10.00 12.33	5.00 4.14	4.35	21.29 21.60	210
211	Garden Truck.....	Claimed. Found.	4.00 2.85	9.72	8.00 8.89	8.80	1.00 1.79	0.55	9.00 10.68	7.00 5.84	6.13	29.22 25.20	211
212	Buffalo Ten-Ten.....	Claimed. Found.	---	---	10.00 10.42	10.32	r1.00 r0.83	---	11.00 11.25	10.00 10.28	10.79	20.40 21.11	212
†479	Fine Steamed Bone.....	Claimed. Found.	1.00 0.90	3.07	11.27	11.16	15.09	4.68	29.00 26.36	---	---	20.81 18.91	479

†Sample 479 claimed to be FINE STEAMED BONE.

Chemist reports that it is not pure steamed bone, but a mixture of bone and bone-black.

The Phosphoric Acid in bone-black has the same valuation as Phosphoric Acid from rock phosphate; hence, our classification of this material as a mixed fertilizer. Total Phosphoric Acid in this brand is figured on basis of 60c instead of 75c per unit allowed for PURE BONE MEAL.

a Wholly from animal matter.

r Wholly from rock.

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* From sulphate.

TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Percent.	Available.	Insoluble.	Total Percent.	Percent.	Value.		
502	INTERNATIONAL AGRICULTURAL CORPORATION (BUFFALO FERTILIZER WORKS) BUFFALO, N. Y., AND CINCINNATI, O.—Concluded.	1913.										
		Claimed.	1.00	3.24	10.00	9.34	9.25	1.00	1.00	0.38	14.67	502
		Found.	0.95		8.00	8.75	8.66	1.21	10.55	2.14	15.01	
503	General Favorite	Claimed.	1.50	4.26	8.00	8.75	8.66	1.00	9.00	0.43	15.98	
		Found.	1.25		8.75			1.40	10.15	2.47	15.82	503
98	JARECKI CHEMICAL COMPANY, THE, SANDUSKY AND CINCINNATI, O.	1913.										
		Claimed.	2.00	7.33	6.00	5.95	5.89	1.00	7.00	0.36	19.37	98
		Found.	2.15		5.95			1.15	7.10	7.83	21.41	
108	High Potash Mixture	Claimed.	1.00	3.58	6.00	6.40	6.34	1.00	7.00	0.20	18.06	108
		Found.	1.05		6.40			0.64	7.04	9.31	19.90	
152	Number One Formula	Claimed.	1.00	3.58	8.00	8.25	8.17	1.00	9.00	0.33	13.74	152
		Found.	1.05		8.25			1.08	9.33	2.43	14.51	

153	C. O. D. Phosphate.....	Claimed. Found.	---	---	14.00	---	15.60	---	r1.00	---	15.00	---	13.86	153
			---	---	15.60	15.44	---	r0.83	---	---	16.43	---	15.44	
154	Square Brand Phosphate and Potash.....	Claimed. Found.	---	---	10.00	---	9.98	---	r1.00	---	11.00	2.00	12.00	154
			---	---	9.98	9.88	---	r1.34	---	---	11.32	2.04	12.02	
155	Fish, Phosphate and Potash, Tobacco and Potato Food.....	Claimed. Found.	1.00	4.09	8.00	---	9.81	---	1.00	---	9.00	4.00	15.84	155
			1.20	---	9.81	9.71	---	0.74	0.23	---	10.55	4.49	18.74	
156	Super-Phosphate and Potash.....	Claimed. Found.	---	---	10.00	---	9.67	---	r1.00	---	11.00	4.00	14.10	156
			---	---	9.67	9.57	---	r1.46	---	---	11.13	3.70	13.46	
207	Lake Erie Guano with Phosphate and Potash.....	Claimed. Found.	1.50	---	8.00	---	8.00	---	1.00	---	9.00	2.50	15.98	207
			1.78	6.07	8.88	8.79	---	1.15	0.36	---	10.03	3.12	18.50	
208	Special Sugar Beet Grower.....	Claimed. Found.	1.00	---	8.00	---	8.00	---	1.00	---	9.00	4.00	15.84	208
			1.18	4.02	10.03	9.93	---	0.71	0.22	---	10.74	3.90	18.27	
229	Black Soil Special.....	Claimed. Found.	---	---	8.00	---	7.88	---	r1.00	---	9.00	8.00	16.32	229
			---	---	8.00	7.80	---	r0.84	---	---	8.72	8.01	16.21	
264	Raw Bone and Phosphate Mixture.....	Claimed. Found.	1.50	---	8.00	---	8.00	---	a8.00	---	16.00	2.00	20.02	264
			1.65	5.63	10.87	10.76	---	7.04	2.18	---	17.91	2.51	21.21	
399	Hay and Pasture Maker.....	Claimed. Found.	4.00	---	6.00	---	6.00	---	1.00	---	7.00	5.00	25.14	399
			3.95	13.47	6.08	6.02	---	1.40	0.43	---	7.48	5.84	26.05	
504	Middle West Formula.....	Claimed. Found.	1.00	---	11.00	---	11.00	---	1.00	---	12.00	2.00	16.71	504
			1.10	3.75	11.97	11.85	---	0.74	0.23	---	12.71	2.14	18.08	
KANKAKEE FERTILIZER CO., THE, INDIANAPOLIS, IND.														
170	Easy Drill 10-2.....	Claimed. Found.	---	---	10.00	---	10.00	---	---	---	---	2.00	12.00	170
			---	---	10.74	10.63	---	r1.15	---	---	11.89	2.10	12.84	
382	Easy Drill Phosphate.....	Claimed. Found.	---	---	14.00	---	14.00	---	---	---	---	---	13.86	382
			---	---	16.05	15.89	---	r0.77	---	---	16.82	---	15.89	

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r Wholly from rock.

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			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
455	KANKAKEE FERTILIZER CO., THE, INDIANAPOLIS, IND.—Concluded.	1913. Claimed. Found.	---	---	10.00 10.16	10.06 10.06	---	---	5.00 4.95	---	15.15 15.26	455
566		Claimed. Found.	1.00 1.15	3.92	8.00 8.12	8.04	0.57	0.18	4.00 4.89	---	15.53 17.27	566
567		Claimed. Found.	---	---	16.00 18.30	18.12	---	---	---	---	15.84 18.12	567
292	LOUISVILLE FERTILIZER CO., LOUISVILLE, KY., AND NASHVILLE, TENN.	1913. Claimed. Found.	---	---	8.00 8.76	8.67	0.75 1.79	---	2.00 3.30	---	13.86 16.61	292
293		Claimed. Found.	1.00 1.00	3.41	7.00 9.14	9.05	0.75 1.53	0.47	4.00 4.70	---	14.77 17.87	293
383		Claimed. Found.	---	---	14.00 14.13	13.99	---	---	---	---	13.86 13.99	383

384	Eagle Potash Mixture.....	Claimed. Found.	----- -----	10.00 9.36	9.27	r0.50 r0.16	----- -----	9.52	2.00 2.40	----- 2.52	12.00 11.79	384
391	Eagle Two-Ten-Two Fertilizer.....	Claimed. Found.	2.00 1.85	10.00 12.60	12.47	0.75 1.06	----- 0.51	14.26	2.00 *3.49	----- 4.57	19.57 23.86	391
392	Eagle Ten-Five Formula.....	Claimed. Found.	----- -----	10.00 10.42	10.32	r0.50 r0.06	----- -----	11.38	5.00 6.32	----- 6.64	15.15 16.96	392
593	Eagle Potash Special.....	Claimed. Found.	1.00 0.85	7.00 8.69	8.60	0.75 1.28	----- 0.40	9.97	7.00 8.07	----- 8.47	17.92 20.37	593
647	Eagle Tobacco Grower.....	Claimed. Found.	3.00 2.25	8.00 11.37	11.26	0.75 1.15	----- 0.36	12.52	6.00 *6.47	----- 8.48	26.24 27.77	647
MAZE & MANSFIELD, GREENVILLE, O.												
499	Big Crop Maker and Potash.....	Claimed. Found.	----- -----	10.00 9.78	9.68	r2.00 r2.11	----- -----	12.00 11.89	3.00 3.43	----- 3.60	13.05 13.28	499
500	Perfection Crop-Maker and Potash.....	Claimed. Found.	----- -----	11.00 13.23	13.10	r2.00 r1.92	----- -----	13.00 15.15	2.00 2.85	----- 2.99	12.99 16.09	500
501	Tip Top Super-Phosphate.....	Claimed. Found.	----- -----	14.00 14.77	14.62	r1.00 r3.07	----- -----	15.00 17.84	----- -----	----- -----	13.86 14.62	501
526	Mace's Prizetaker Tobacco and Potato Special.....	Claimed. Found.	1.00 1.10	8.00 8.25	8.17	2.00 0.70	----- 0.22	10.00 8.95	4.00 4.06	----- 4.89	16.15 17.03	526
MARIETTA BONE & PHOSPHATE CO., THE, MARIETTA, OHIO.												
233	Potato and Truck Special.....	Claimed. Found.	2.50 2.00	8.00 8.73	8.64	2.00 1.31	----- 0.41	10.00 10.04	6.00 4.96	----- 5.21	23.37 21.08	233
234	Acid Phosphate.....	Claimed. Found.	----- -----	16.00 18.36	18.18	r1.00 r0.19	----- -----	17.00 18.55	----- -----	----- -----	15.84 18.18	234

* From sulphate.

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			Percent.	Value.	Available.		Insoluble.		Percent.	Value.			
					Percent.	Value.	Percent.	Value.					
													Total Percent.
MARIETTA BONE & PHOSPHATE CO., THE, MARIETTA, OHIO—Concluded.													
539	14-8-3	1913. Claimed. Found.	1.50 1.25	4.26	8.00 8.18	8.10	2.00 1.79	0.55	10.00 9.97	3.00 3.28	3.44	16.81 16.35	539
626	1-8-8	Claimed. Found.	1.00 0.88	3.00	8.00 7.49	7.42	2.00 1.08	0.33	10.00 8.57	8.00 7.69	8.07	20.35 18.82	626
627	Corn, Oats and Wheat Grower	Claimed. Found.	1.00 0.90	3.07	8.00 9.47	9.38	2.00 1.40	0.43	10.00 10.87	2.00 2.08	2.18	14.05 15.06	627
MARTIN COMPANY, D. B., PHILADELPHIA, PA.													
509	Martin's Dissolved Organic Compound	1913. Claimed. Found.	1.25 1.20	4.09	9.00 9.22	9.13	2.00 2.50		11.00 11.72	2.00 2.72		15.89 16.08	509
MENDELSON REDUCTION CO., THE, ELYRIA, OHIO.													
385	Pure Animal Fertilizer	1913. Claimed. Found.	5.75 6.43	21.93	9.53 10.49	10.39	8.46 8.77	2.30	15.99 14.26			32.98 34.62	385

MILLER, E. L., WASHINGTON, C. H., O.												
656	Dahl's Special	Claimed. Found.	2.00 2.00	6.82	10.00 13.94	3.00 5.05	1.57	13.00 18.99	2.00 2.53	2.06	19.75 24.85	656
MORRIS & COMPANY, CHICAGO, ILL.												
164	Big Six—Special Bone Meal and Potash.	Claimed. Found.	0.50 1.15	3.92	7.67	5.12	3.12	16.00 12.79	*2.00 *1.45	1.90	16.33 16.53	164
242	Big Seven—Special Bone Meal and Potash.	Claimed. Found.	1.50 1.63	5.56	9.65	8.66	4.06	16.00 16.31	*3.00 *2.49	3.26	21.05 22.43	242
243	Big Ten—Prepared Manure with Phosphate and Potash.	Claimed. Found.	2.00 2.75	9.38	8.00 10.34	2.00 1.02	0.32	10.00 11.36	*2.00 *2.45	3.21	17.98 23.15	243
244	Big Eleven—Bone Meal and Potash.	Claimed. Found.	1.00 1.75	5.97	6.90	8.33	2.03	16.00 10.23	*10.81 *10.00	14.16	28.51 28.99	244
245	Big Twelve—Prepared Manure with Phosphate and Potash.	Claimed. Found.	1.00 1.90	6.48	7.00 7.35	2.00 0.26	0.08	9.00 7.61	*3.00 *3.28	4.30	14.89 18.14	245
373	Big Four.	Claimed. Found.	5.00 5.00	17.05	7.00 10.36	5.00 2.62	0.81	12.00 12.98	*4.00 *4.61	6.04	32.27 34.16	373
473	Big Five.	Claimed. Found.	3.00 3.08	10.50	7.00 9.84	3.00 2.81	0.87	10.00 12.65	*1.00 *1.66	2.17	20.30 23.28	473
498	Big Nine—Prepared Manure with Phosphate and Potash.	Claimed. Found.	1.00 1.60	5.46	7.00 8.38	2.00 1.21	0.38	9.00 9.59	*7.00 *5.53	7.24	20.13 21.38	498
532	Big Three.	Claimed. Found.	3.00 3.20	10.91	6.00 7.86	4.00 1.92	0.60	10.00 9.78	*2.00 *1.91	2.50	21.23 21.79	532
588	Big Eight.	Claimed. Found.	1.00 1.78	6.07	7.00 7.54	1.00 0.90	0.28	8.00 8.44	*1.00 *1.06	1.39	11.96 15.20	588

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TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.	
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.			
					Percent.	Value.	Percent.	Value.					
													Total Percent.
	MUSKINGUM VALLEY FERTILIZER CO., THE, MARIETTA, OHIO.	1913.											
225	Muskingum Brand Special Acid Phosphate and Potash.....	Claimed. Found	----- -----	----- -----	10.00 10.08	9.98 -----	r1.00 r0.16	----- -----	11.00 10.24	2.00 3.28	----- 3.44	12.00 13.42	225
535	Muskingum Brand—Special Vegetable Grower	Claimed. Found.	1.50 1.65	5.63 -----	9.00 9.82	9.72 -----	1.00 1.08	0.33 -----	10.00 10.90	6.00 9.08	----- 9.53	20.64 25.21	535
536	Muskingum Brand—Special Corn, Oats and Wheat Grower.....	Claimed. Found.	1.00 1.15	3.92 -----	10.00 11.05	10.94 -----	1.00 0.96	----- 0.30	11.00 12.01	1.50 1.98	2.08 -----	15.20 17.24	536
	NATURAL GUANO COMPANY, AUROREA, ILL.	1913.											
541	"Sheep's Head" Pulverized Sheep Manure.....	Claimed. Found.	2.25 2.73	9.31 -----	1.00 1.40	----- 1.39	----- a0.19	----- 0.12	1.25 1.59	1.50 1.70	----- 1.79	10.24 12.61	541
	NEW PROCESS FERTILIZER CO., THE, COLUMBUS, OHIO.	1913.											
95	Royal Chief.....	Claimed. Found.	----- -----	----- -----	10.00 10.68	10.57 -----	----- r0.51	----- -----	----- 11.19	5.00 4.49	----- 4.71	15.15 15.28	95

113	Humus Chief.....	Claimed. Found.	---	---	14.00 15.23	---	15.03	r1.46	---	16.69	---	---	13.86 15.08	113
114	O. K. Chief.....	Claimed. Found.	---	---	10.00 9.43	---	9.34	r1.12	---	10.55	2.00 1.85	1.94	12.00 11.28	114
446	Big Chief.....	Claimed. Found.	1.00 1.30	4.43	8.00 8.05	---	7.97	1.73	0.54	9.78	4.00 4.32	4.54	15.53 17.48	446
447	Black Chief.....	Claimed. Found.	2.00 1.70	5.80	8.00 8.05	---	7.97	2.56	0.79	10.61	2.00 2.85	2.99	16.84 17.55	447
448	Acme Special Chief.....	Claimed. Found.	2.00 1.85	6.31	7.00 7.29	---	7.22	1.28	0.40	8.57	10.00 9.96	10.46	24.25 24.39	448
NITRATE AGENCIES COMPANY, NEW YORK, N. Y., AND COLUMBUS, OHIO.														
77	Acid Phosphate.....	Claimed. Found.	---	---	16.00 18.06	---	17.88	r1.00 r0.93	---	18.99	---	---	15.84 17.88	77
163	Acid Phosphate.....	Claimed. Found.	---	---	14.00 16.31	---	16.15	r1.00 r0.64	---	16.95	---	---	13.86 16.15	163
OHIO STANDARD CHEMICAL COMPANY, THE, TOLEDO, OHIO.														
271	Standard E.....	Claimed. Found.	---	---	10.00 11.32	---	11.21	r0.57	---	11.89	10.00 9.39	9.86	20.40 21.07	271
403	Standard B.....	Claimed. Found.	---	---	16.00 17.62	---	17.44	r0.99	---	18.61	---	---	15.84 17.44	403
404	Standard F.....	Claimed. Found.	1.00 1.55	5.29	8.00 9.27	---	9.18	1.66	0.51	10.93	3.00 3.91	4.11	14.48 19.09	404

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TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
OHIO STANDARD CHEMICAL COMPANY, THE, TOLEDO, OHIO—Concluded.												
1913.												
471	Standard C.....	Claimed. Found.	2.00 2.35	8.01 8.27	10.00 10.68	10.57 10.53	0.70 0.61	11.38 11.25	2.00 2.06	2.16	12.00 12.73	471
472	Standard D.....	Claimed. Found.	5.00 5.28	5.54	10.00 10.64	10.53	0.61	11.25	5.00 5.28	5.54	15.15 16.07	472
477	Standard H.....	Claimed. Found.	2.00 2.35	8.01 8.27	8.00 8.35	8.27	3.29	11.64	5.00 5.30	5.57	19.99 22.87	477
650	Standard J.....	Claimed. Found.	3.00 3.65	12.45	8.00 8.24	8.16	0.64	8.88	6.00 6.34	6.66	24.45 27.47	650
661	Standard I.....	Claimed. Found.	2.00 3.85	13.13	8.00 9.59	9.49	1.47	11.06	10.00 6.84	7.18	25.24 30.26	661
663	Bone Meal.....	Claimed. Found.	3.00 3.00	10.23	17.35	17.18	89.84	24.00 27.19	---	---	28.23 33.41	663

PACKERS' FERTILIZER CO., THE, CINCINNATI, OHIO.		1913.																		
327	Ammoniated Phosphate.....	Claimed. Found.	1.00 1.10	3.75	8.00 9.27	9.18	1.00 0.96	0.30	9.00 10.23	2.00 2.24	2.35	13.74 15.58	327							
328	Acidulated Phosphate.....	Claimed. Found.	----- -----	-----	14.00 15.67	15.51	1.00 1.07	-----	15.00 16.37	----- -----	-----	13.86 15.51	328							
329	Animal Tankage, Phosphate and Potash.....	Claimed. Found.	1.00 1.10	3.75	8.00 9.32	9.23	1.00 0.71	0.22	9.00 10.03	4.00 4.43	4.65	15.84 17.85	329							
330	Phosphate with Humus.....	Claimed. Found.	0.50 0.53	1.81	12.00 12.57	12.44	1.00 1.34	-----	13.00 13.91	----- -----	-----	13.59 14.25	330							
371	Potato, Tobacco and Truck Manure.....	Claimed. Found.	2.00 2.35	8.01	6.00 5.85	5.79	1.00 1.12	0.35	7.00 6.97	6.00 6.49	6.8	19.37 20.96	371							
564	Sweepstakes.....	Claimed. Found.	1.50 1.78	6.07	8.00 7.48	7.41	1.00 1.15	0.36	9.00 8.63	2.50 2.99	3.14	15.98 16.98	564							
565	High Potash Manure.....	Claimed. Found.	1.00 1.20	4.09	6.00 6.75	6.68	1.00 0.74	0.23	7.00 7.49	8.00 8.52	8.95	18.06 19.95	565							
608	Super-Phosphate and Potash.....	Claimed. Found.	----- -----	-----	10.00 11.64	11.52	1.00 1.21	-----	11.00 12.85	4.00 4.20	4.41	14.10 15.93	608							
623	Pure Bone with Phosphate and Potash.....	Claimed. Found.	1.50 1.85	6.31	8.00 9.08	8.99	2.00 1.17	2.22	16.00 16.25	2.00 2.95	3.10	20.02 20.62	623							
628	Acidulated Phosphate and Potash.....	Claimed. Found.	----- -----	-----	10.00 9.98	9.88	1.00 1.72	-----	11.00 11.70	2.00 2.60	2.73	12.00 12.61	628							
629	Black Soil Special.....	Claimed. Found.	----- -----	-----	8.00 8.11	8.03	1.00 1.28	-----	9.00 9.39	8.00 8.06	8.46	16.32 16.49	629							

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TABLE I—MIXED FERTILIZERS—Continued.

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			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
PAN AMERICAN FERTILIZER CO., NEW YORK, N. Y., AND COLUMBUS, OHIO.												
213	Pan American Phosphate and Potash.....	1913. Claimed. Found.	----- ----- -----	----- ----- -----	10.00 11.26	11.15	r1.00 r1.72	----- ----- -----	2.00 3.34	3.51	12.00 14.66	213
469	Pan American Harvest Winner.....	Claimed. Found.	----- ----- -----	----- ----- -----	12.00 11.97	11.85	r1.08	----- ----- -----	5.00 5.20	5.46	17.13 17.31	469
494	Pan American General Crop Grower.....	Claimed. Found.	1.00 1.20	4.09	8.00 8.25	8.17	1.00 0.77	----- 0.24	9.00 9.02	4.00 4.43	15.84 17.15	494
667	Pan American Champion.....	Claimed. Found.	----- ----- -----	----- ----- -----	10.00 10.75	10.64	r1.00 r2.23	----- ----- -----	5.00 4.78	5.02	15.15 15.66	667
PIEDMONT-MT. AIRY GUANO COMPANY, BALTIMORE, MD.												
99	Piedmont High Grade Acid Phosphate.....	1913. Claimed. Found.	----- ----- -----	----- ----- -----	14.00 15.71	15.55	r1.00 r1.02	----- ----- -----	----- ----- -----	----- ----- -----	13.86 15.55	99
100	Piedmont Farmers' Favorite.....	Claimed. Found.	1.00 1.15	3.92	8.00 8.95	8.86	1.00 0.64	----- .20	4.00 4.48	4.70	15.84 17.68	100

140	Piedmont Acidulated Phosphate and Potash for all Crops.....	Claimed. Found.	----- -----	----- -----	10.00 10.04	----- 9.94	r0.50 r0.70	----- -----	----- 10.74	2.00 2.57	----- 2.70	12.00 12.64	140
239	Piedmont Harvest Queen.....	Claimed. Found.	1.00 1.15	3.92	8.00 8.70	----- 8.61	1.00 r0.44	----- -----	----- 9.14	2.00 3.28	----- 3.44	13.74 15.97	239
240	Piedmont Champion Fertilizer.....	Claimed. Found.	1.00 1.20	4.09	8.00 9.01	----- 8.92	1.00 0.61	----- 0.19	----- 9.62	7.00 6.97	----- 7.32	18.99 20.52	240
272	Piedmont Special for Grain and Grass.....	Claimed. Found.	1.00 1.15	3.92	9.00 8.63	----- 8.54	1.00 0.83	----- 0.26	----- 9.46	3.00 5.16	----- 5.42	15.78 18.14	272
314	Piedmont Tobacco and Potato Compound.....	Claimed. Found.	2.00 1.20	4.09	6.00 7.36	----- 7.29	1.00 0.57	----- 0.18	----- 7.93	10.00 9.43	----- 9.90	23.57 21.46	314
359	Piedmont Plow Brand.....	Claimed. Found.	2.00 1.65	5.63	8.00 9.25	----- 9.16	1.00 0.90	----- 0.28	----- 10.15	2.00 2.55	----- 2.68	17.15 17.75	359
375	Piedmont 16% Acid Phosphate.....	Claimed. Found.	----- -----	----- -----	16.00 18.19	----- 18.01	r1.00 r1.44	----- -----	----- 17.00	----- -----	----- -----	15.84 18.01	375
425	Piedmont Perfection Fertilizer.....	Claimed. Found.	2.00 2.15	7.33	8.00 9.14	----- 9.05	1.00 0.51	----- 0.16	----- 9.65	5.00 5.57	----- 5.85	20.30 22.39	425
443	Piedmont Phosphate and Potash Mixture.....	Claimed. Found.	----- -----	----- -----	10.00 10.04	----- 9.94	r0.50 r1.02	----- -----	----- 11.06	5.00 5.93	----- 6.23	15.15 16.17	443
452	Just for Luck.....	Claimed. Found.	----- -----	----- -----	16.00 16.50	----- 16.34	r1.00 r0.83	----- -----	----- 17.00	----- -----	----- -----	15.84 16.34	452
PIONEER FERTILIZER COMPANY, INC., CHICAGO, ILL., AND CLEVELAND, O.													
409	Pioneer General Crop Grower.....	Claimed. Found.	2.00 2.10	7.16	8.00 8.57	----- 8.48	a1.00 1.08	----- 0.33	----- 9.65	2.00 1.95	----- 2.05	17.45 18.02	409
410	Pioneer High Grade Phosphate and Potash.....	Claimed. Found.	----- -----	----- -----	10.00 10.06	----- 9.95	----- r1.08	----- -----	----- 11.13	4.00 3.37	----- 3.75	14.10 13.70	410

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			Percent.	Value.	Percent.	Available.	Insoluble.	Total Percent.	Percent.	Value.		
		1913.										
411	PIONEER FERTILIZER COMPANY, INC., CHICAGO, ILL., AND CLEVELAND, O. —Concluded.	Claimed. Found.				10.00 9.98			2.00 2.04		12.00 12.02	411
444	Pioneer Grain Fertilizer	Claimed. Found.	1.00 1.05	3.58	8.50 8.19	8.11	0.45	8.50 9.65	2.00 2.18		13.74 14.43	444
	PITTSBURGH PROVISION & PACKING CO., PITTSBURGH, PA.	1913.										
545	Keystone Fertilizer	Claimed. Found.	1.75 2.05	6.99	9.00 9.37	9.28		11.00 10.36	1.50 1.85		17.08 18.52	545
558	Treated Bone with Potash	Claimed. Found.	3.00 3.45	11.76	7.00 11.09	10.98		14.00 15.82	3.00 3.45		25.36 28.73	558
605	Pure Bone and Meat	Claimed. Found.	6.00 11.10	37.85	4.47	4.43		8.00 5.75			26.46 43.06	605

PORTSMOUTH CHEMICAL COMPANY, THE, PORTSMOUTH, O.											
1913.											
603	Truck, Potato and Tobacco.....	3.00	14.83	8.00	7.59	0.50	2.34	11.51	6.00	24.61	603
		4.35		7.67		3.84			6.80	31.90	
606	Popular.....	2.00	16.88	8.00	8.47	0.50	1.21	12.46	2.00	17.00	606
		4.95		8.56		3.90			3.68	30.42	
PULVERIZED MANURE COMPANY, THE, CHICAGO, ILL.											
1913.											
250	Wizard Brand Manure.....	2.10		1.00				1.00	1.00	9.46	
		2.65	9.04	1.66	1.64	0.13	0.08	1.79	*2.59	14.15	250
671	Wizard Brand Concentrated Plant Food.....	3.00		6.00				6.00	2.00	18.79	
		4.78	16.30	6.40	6.34	0.51	0.16	6.91	*4.95	29.28	671
QUEEN CITY FERTILIZER COMPANY, CINCINNATI, O.											
1913.											
412	Lion Phosphate.....			14.00		1.00		15.00		13.86	
				15.74	15.58	1.57		16.31		15.58	412
505	Acid Phosphate.....			16.00		1.00		17.00		15.84	
				15.35	15.20	1.57		15.92		15.20	505
573	Miami Valley Grain Grower.....	1.50		8.00		1.00		9.00	2.50	15.98	
		1.15	3.92	8.56	8.47	0.90	0.28	9.46	2.24	15.02	573
574	Big Bonanza Tobacco and Potato Grower.....	1.00		8.00		1.00		9.00	4.00	15.84	
		1.18	4.02	8.44	8.36	0.83	0.26	9.27	4.68	17.55	574
577	Special Sugar Beet Grower.....	1.00		8.00		1.00		9.00	4.00	15.84	
		1.20	4.09	10.11	10.01	1.08	0.33	11.19	4.32	18.97	577

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			Percent.	Value.	Available.		Insoluble.		Percent.	Value.			
					Percent.	Value.	Percent.	Value.					
													Total Percent.
653	QUEEN CITY FERTILIZER COMPANY, CINCINNATI, O.—Concluded.	1913. Claimed. Found.	1.00 1.30	----- 4.43	8.00 9.15	----- 9.06	1.00 1.37	----- 0.42	9.00 10.52	2.00 2.47	----- 2.59	13.74 16.50	653
654	Bone with Phosphate and Potash	Claimed. Found.	1.50 1.95	----- 6.65	8.00 10.91	----- 10.80	28.00 6.74	----- 2.09	16.00 17.65	2.00 2.34	----- 2.46	20.02 22.00	654
57	RAUH & SONS FERTILIZER CO., E., INDIANAPOLIS, IND.	1913. Claimed. Found.	----- -----	----- -----	10.00 11.12	----- 11.01	----- 11.40	----- -----	----- 12.52	4.00 4.61	----- 4.84	14.10 15.85	57
63	Peerless	Claimed. Found.	1.00 1.15	----- 3.92	8.00 8.60	8.51	2.71	0.84	11.31	8.00 10.14	----- 10.65	19.73 23.92	63
336	Corn and Wheat Grower	Claimed. Found.	1.00 1.00	----- 3.41	8.00 9.15	9.06	12.49	-----	11.64	2.00 2.43	----- 2.55	13.43 15.02	336
596	Red Star Phosphate	Claimed. Found.	----- -----	----- -----	14.00 15.61	15.45	10.57	-----	16.18	----- -----	----- -----	13.86 15.45	596

597	Phosphate and Potash.....	Claimed. Found.	-----	10.00	11.69	11.57	-----	-----	-----	-----	-----	2.00	-----	12.00
												2.26	2.37	13.94
598	Complete Fertilizer.....	Claimed. Found.	1.00	8.00	8.63	8.54	-----	-----	-----	-----	-----	3.00	-----	14.48
			1.20	4.09	8.63	8.54	-----	-----	-----	-----	-----	4.11	4.32	16.95
599	Rauh's Choice.....	Claimed. Found.	2.00	8.00	8.43	9.34	-----	-----	-----	-----	-----	2.00	-----	16.84
			2.50	8.53	9.43	9.34	-----	-----	-----	-----	-----	2.57	2.70	21.40
630	Our Special.....	Claimed. Found.	2.00	10.00	12.21	12.09	-----	-----	-----	-----	-----	6.00	-----	23.02
			2.35	8.01	12.21	12.09	-----	-----	-----	-----	-----	7.59	7.97	28.39
631	Half and Half with Potash.....	Claimed. Found.	1.20	8.00	9.67	9.57	-----	-----	-----	-----	-----	5.00	-----	19.74
			1.40	4.77	9.67	9.57	-----	-----	-----	-----	-----	6.11	6.42	23.20
	RICKARD, G. W., MEDINA, OHIO. Manufactured by The Smith Agricultural Chemical Company, Columbus, Ohio.	1913.												
182	Rickard's Dissolved Phosphate and Potash.....	Claimed. Found.	-----	12.00	13.30	13.17	-----	-----	-----	-----	-----	4.00	-----	16.08
			-----	-----	-----	-----	-----	-----	-----	-----	-----	3.64	3.82	16.99
394	Rickard's Dissolved Phosphate.....	Claimed. Found.	-----	16.00	18.65	18.46	-----	-----	-----	-----	-----	-----	-----	15.84
			-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	18.46
397	Rickard's Best Phosphate.....	Claimed. Found.	2.00	10.00	11.64	11.52	-----	-----	-----	-----	-----	4.00	-----	20.92
			2.00	6.82	11.64	11.52	-----	-----	-----	-----	-----	4.59	4.82	23.58
	BUEHLE & COMPANY, JOHN, DEFIANCE, OHIO.	1913.												
659	Mixed Fertilizer with Potash.....	Claimed. Found.	2.00	3.00	4.60	4.55	-----	-----	-----	-----	-----	6.00	-----	16.70
			1.00	3.41	4.60	4.55	-----	-----	-----	-----	-----	9.10	9.56	17.92
	SLOVER FERTILIZER CO., THE EDW., CAMDEN, OHIO.	1913.												
427	Tobacco and Truck.....	Claimed. Found.	1.00	8.00	9.07	8.98	-----	-----	-----	-----	-----	7.00	-----	18.99
			1.05	3.58	9.07	8.98	-----	-----	-----	-----	-----	7.17	7.53	20.35

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TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Percent.	Value.	Insoluble.	Total Percent.	Percent.	Value.		
428	SLOVER FERTILIZER CO., THE EDW., CAMDEN, OHIO—Concluded.	1913. Claimed. Found.	2.00	---	9.00	---	3.00	---	2.50	---	19.29	428
			2.30	7.84	11.20	11.09	2.23	0.69	3.53	3.71	23.33	
429	Wheat Special.....	Claimed. Found.	1.00	---	9.00	---	1.00	---	2.00	---	14.73	429
			0.75	2.56	13.12	12.99	1.02	0.32	2.91	3.06	18.93	
430	Fourteen.....	Claimed. Found.	---	---	14.00	---	1.00	---	---	---	13.86	430
			---	---	15.99	15.83	10.98	---	---	---	15.83	
52	SMITH AGRICULTURAL CHEMICAL CO., THE, COLUMBUS, OHIO.	1913. Claimed. Found.	---	---	16.00	---	---	---	---	---	15.84	52
			---	---	18.10	17.12	11.15	---	---	---	17.92	
201	16% Acid Phosphate.....	Claimed. Found.	1.00	---	6.00	---	---	---	10.00	---	19.85	201
			1.20	4.09	7.48	7.41	11.21	8.69	10.76	11.30	22.80	
230	Special Potato Formula.....	Claimed. Found.	4.00	---	6.00	---	---	---	7.00	---	26.93	230
			3.40	11.59	6.36	6.30	2.33	0.72	8.27	8.68	27.29	
	Vegetable Formula.....	Claimed. Found.	---	---	---	---	---	---	---	---	---	
			---	---	---	---	---	---	---	---	---	

407	Black Soil Formula.....	Claimed. Found.	---	---	10.00 10.52	---	10.41	r1.18	---	---	11.70	10.00 11.38	---	20.40 22.36	407
518	Bone Meal with Phosphate and Potash.....	Claimed. Found.	1.00 1.05	3.58	15.00 15.35	---	15.20	1.02	0.32	---	---	2.00 2.84	---	20.36 22.08	518
179	Abbott and Martin's Dissolved Phosphate and Potash.....	Claimed. Found.	---	---	10.00 10.71	---	10.60	r1.21	---	---	11.92	5.00 5.45	5.72	15.15 16.32	179
180	Abbott and Martin's Peerless Phosphate and Potash.....	Claimed. Found.	1.00 1.10	3.75	8.00 8.85	---	8.76	1.18	0.37	---	---	2.00 2.28	---	13.43 15.27	180
251	Abbott and Martin's Universal Fertilizer.....	Claimed. Found.	1.00 1.00	---	8.00 9.00	---	8.91	r1.15	---	---	---	4.00 3.99	---	15.53 16.51	251
252	Abbott and Martin's York Special.....	Claimed. Found.	1.00 1.10	3.75	8.00 8.44	---	8.36	r1.79	---	---	10.23	7.00 7.88	8.27	18.68 20.38	252
317	Abbott and Martin's Harvest King.....	Claimed. Found.	2.00 1.75	5.97	8.00 9.27	---	9.18	1.40	0.43	---	---	2.00 2.45	2.57	16.84 18.15	317
624	Abbott and Martin's Hercules Phosphate.....	Claimed. Found.	---	---	14.00 14.55	---	14.40	r0.48	---	---	15.03	---	---	13.86 14.40	624
649	Abbott and Martin's Star Phosphate.....	Claimed. Found.	---	---	10.00 11.00	---	10.89	r1.46	---	---	12.46	2.00 2.07	2.17	12.00 13.06	649
159	Buckeye Complete Fertilizer.....	Claimed. Found.	1.00 1.15	3.92	8.00 9.15	---	9.06	r1.34	---	---	10.49	2.00 2.33	2.45	13.43 15.43	159
160	Buckeye Grain Grower.....	Claimed. Found.	2.00 2.05	6.59	8.00 9.55	---	9.49	1.21	0.38	---	---	2.00 2.20	2.31	16.84 19.17	160
181	Buckeye Sterling Formula.....	Claimed. Found.	---	---	10.00 11.37	---	11.26	r0.70	---	---	12.07	5.00 5.41	5.68	15.15 16.94	181
297	Buckeye Wheat Maker.....	Claimed. Found.	---	---	10.00 12.11	---	11.99	r1.76	---	---	13.87	2.00 2.18	2.29	12.00 14.28	297

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TABLE I—MIXED FERTILIZERS—Continued.

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			Percent.	Value.	Percent.	Insoluble.	Total Percent.	Value.	Percent.	Value.		
	SMITH AGRICULTURAL CHEMICAL CO., THE, COLUMBUS, OHIO—Continued.	1913.										
288	Buckeye Special Phosphate and Potash Mixture	Claimed. Found.	1.00 1.00	3.41	8.00 9.73	9.63	r1.46	11.19	4.00 4.39	4.61	15.53 17.65	298
302	Buckeye Super-Phosphate	Claimed. Found.	— —	—	14.00 15.49	15.34	r1.40	16.89	—	—	13.86 15.34	302
476	Buckeye Champion Phosphate	Claimed. Found.	1.00 1.15	3.92	8.00 8.60	8.51	r1.28	9.88	7.00 7.26	7.62	18.68 20.05	476
61	Chicago Fertilizer Co.'s Calumet Phosphate	Claimed. Found.	— —	—	10.00 10.86	10.75	r1.15	12.01	2.00 2.10	2.21	12.00 12.96	61
82	Chicago Fertilizer Co.'s Diamond Phosphate and Potash	Claimed. Found.	— —	—	10.00 10.30	10.20	r1.08	11.38	5.00 5.38	5.65	15.15 15.85	82
299	Chicago Fertilizer Co.'s Diamond Phosphate	Claimed. Found.	— —	—	14.00 15.32	15.17	r1.21	16.53	—	—	13.86 15.17	299
300	Chicago Fertilizer Co.'s B. B. and P. Brand	Claimed. Found.	2.00 2.05	6.99	8.00 9.60	9.50	1.46	0.45	2.00 2.34	2.46	16.84 19.40	300

301	Chicago Fertilizer Co.'s New Leader.....	Claimed. Found.	1.00	3.41	8.00	9.59	r1.05	---	---	10.74	7.00	7.53	18.93	301
340	Chicago Fertilizer Co.'s Potash Special.....	Claimed. Found.	1.00	3.41	8.00	9.06	r1.46	---	---	10.61	4.00	4.97	15.53	340
528	Chicago Fertilizer Co.'s Potato, Truck and Tobacco.....	Claimed. Found.	2.00	6.48	8.00	8.54	1.40	0.43	10.03	---	4.00	4.50	18.94	528
575	Chicago Fertilizer Co.'s Western Phosphate and Potash.....	Claimed. Found.	1.00	3.75	8.00	9.43	1.34	0.42	10.87	---	2.00	2.53	13.43	575
166	Hardy's Acme Phosphate.....	Claimed. Found.	---	---	10.00	10.26	r1.31	---	---	11.67	5.00	5.76	15.15	166
167	Hardy's Tobacco and Potato Special.....	Claimed. Found.	2.00	6.14	8.00	9.42	1.15	0.36	10.67	---	4.00	4.62	18.94	167
393	Hardy's Corn and Wheat Grower.....	Claimed. Found.	1.00	3.75	8.00	8.85	r1.21	---	10.15	---	2.00	2.42	13.43	393
405	Hardy's Security Phosphate.....	Claimed. Found.	---	---	14.00	15.95	r0.96	---	17.07	---	---	---	13.86	405
454	Hardy's Potash Fertilizer.....	Claimed. Found.	1.00	3.58	8.00	8.10	1.28	0.40	9.46	---	4.00	4.52	15.53	454
485	Hardy's Phosphate and Potash.....	Claimed. Found.	---	---	10.00	10.76	r1.02	---	11.89	---	2.00	2.66	12.00	485
516	Hardy's Tankage, Phosphate and Potash.....	Claimed. Found.	2.00	7.84	8.00	8.23	1.59	0.49	9.90	---	2.00	2.59	16.84	516
517	Hardy's Imperial Phosphate.....	Claimed. Found.	1.00	3.75	8.00	8.35	r0.90	---	9.33	---	7.00	7.89	18.93	517
19	Ohio Farmer's Climax Phosphate.....	Claimed. Found.	---	---	10.00	11.47	11.36	r1.21	---	12.68	5.00	5.75	15.15	19

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TABLE I—MIXED FERTILIZERS—Continued.

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			Percent.	Value.	Available.		Insoluble.		Percent.	Value.			
					Percent.	Value.	Percent.	Value.					
													Total Percent.
	SMITH AGRICULTURAL CHEMICAL CO., THE, COLUMBUS, O.—Concluded.	1913.											
80	Ohio Farmer's Soluble Phosphate and Potash.	Claimed. Found.	----- -----	----- -----	10.00 10.99	10.88	----- -----	----- -----	12.01	2.00 1.93	----- 2.03	12.00 12.91	80
81	Ohio Farmer's Potato and Tobacco Special	Claimed. Found.	2.00 1.90	6.48	8.00 9.68	9.58	----- r0.99	----- -----	10.67	4.00 4.61	4.84	18.94 20.90	81
214	Ohio Farmer's Corn, Oats and Wheat Fertilizer	Claimed. Found.	2.00 2.08	7.09	8.00 9.03	8.94	----- -----	0.45	10.49	2.00 2.35	2.47	16.84 18.95	214
226	Ohio Farmer's Ammoniated Phosphate and Potash.	Claimed. Found.	1.00 0.88	3.00	8.00 9.36	9.27	----- -----	0.39	10.61	4.00 4.11	4.32	15.53 16.98	226
231	Ohio Farmer's Alkaline Phosphate	Claimed. Found.	----- -----	----- -----	14.00 15.35	15.20	----- r0.77	----- -----	16.12	----- -----	----- -----	13.86 15.12	231
380	Ohio Farmer's Excelsior Phosphate	Claimed. Found.	1.00 1.30	4.43	8.00 10.34	10.24	----- -----	0.84	13.05	7.00 8.69	9.12	18.68 24.63	380
482	Ohio Farmer's Wheat Maker and Seeding Down.	Claimed. Found.	1.00 1.00	3.41	8.00 8.51	8.42	----- r1.21	----- -----	9.72	2.00 2.39	2.51	13.43 14.34	482

277	Western Chemical Gem Phosphate.....	Claimed. Found.	1.00 0.90	3.07	8.00 9.31	9.22	r1.02	-----	-----	10.33	7.00 6.89	-----	18.68 19.31	277
278	Western Chemical Dissolved Phosphate.....	Claimed. Found.	----- -----	-----	14.00 15.49	15.34	r1.40	-----	-----	16.89	-----	-----	13.86 15.34	278
279	Western Chemical Royal Phosphate.....	Claimed. Found.	----- -----	-----	10.00 11.18	11.07	r0.96	-----	-----	12.14	5.00 5.93	6.23	15.15 17.30	279
341	Western Chemical Pioneer Seed Maker.....	Claimed. Found.	1.00 1.00	3.41	8.00 9.00	8.91	r1.15	-----	-----	10.15	2.00 2.41	2.53	13.43 14.85	341
342	Western Chemical Standard Phosphate.....	Claimed. Found.	2.00 1.95	6.65	8.00 9.60	9.50	1.40	0.43	-----	11.00	2.00 2.37	2.49	16.84 19.07	342
343	Western Chemical Erie Phosphate.....	Claimed. Found.	1.00 1.08	3.68	8.00 9.02	8.93	1.40	0.43	-----	10.42	4.00 4.45	4.67	15.53 17.71	343
352	Western Chemical Crop Producer.....	Claimed. Found.	2.00 2.05	6.99	8.00 8.17	8.09	1.92	0.60	-----	10.09	4.00 4.41	4.63	18.94 20.31	352
483	Western Chemical Acidulated Phosphate.....	Claimed. Found.	----- -----	-----	10.00 9.98	9.88	r0.51	-----	-----	10.49	2.00 2.28	2.39	12.00 12.27	483
STADLER RENDERING & FERTILIZER CO., J. L. & H., CLEVELAND, O.														
32	Stadler's Potato and Tobacco Grower.....	Claimed. Found.	2.00 2.00	6.82	8.00 8.66	8.57	a1.25 1.89	----- 0.59	-----	9.25 10.55	5.00 5.30	5.57	20.75 21.55	32
33	Stadler's Corn and Wheat Special.....	Claimed. Found.	1.00 1.40	4.77	8.00 8.12	8.04	a1.25 1.34	0.42	-----	9.25 9.46	4.00 5.45	5.72	16.29 18.95	33
34	Stadler's Special Phosphate and Potash.....	Claimed. Found.	----- -----	-----	9.00 10.04	9.94	r1.00 r1.40	-----	-----	10.00 11.44	5.00 5.81	6.10	14.16 1.04	34
45	Stadler's Acid Phosphate and Potash.....	Claimed. Found.	----- -----	-----	9.00 9.21	9.12	r1.00 r1.21	-----	-----	10.00 10.42	3.00 3.12	3.28	12.06 12.40	45

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					Percent.	Value.	Percent.	Value.				
STADLER RENDERING & FERTILIZER CO., J. L. & H., CLEVELAND, O. —Concluded.												
46	Stadler's Vegetable Manure.....	1913. Claimed. Found.	2.50 2.25	7.67	9.23 10.17	10.07	— —	— —	10.00 12.40	8.00 7.07	26.54 26.85	46
d46	†Stadler's Vegetable Manure.....	Claimed. Found.	2.50 2.80	9.55	9.23 10.01	9.91	— —	— —	10.00 11.38	8.00 7.96	26.54 28.24	d46
47	Stadler's 12-5.....	Claimed. Found.	— —	— —	12.00 11.90	11.78	— —	— —	13.00 13.75	5.00 5.63	17.13 17.69	47
157	Stadler's Acid Phosphate.....	Claimed. Found.	— —	— —	14.00 14.00	13.86	— —	— —	15.00 15.92	— —	13.86 13.86	157
191	Stadler's Grain Grower.....	Claimed. Found.	2.00 1.30	4.43	8.00 8.89	8.80	— —	— —	9.25 10.42	2.00 5.96	17.60 19.95	191
203	Stadler's Celery Growers' Special.....	Claimed. Found.	— —	— —	6.00 8.70	8.61	— —	— —	6.50 9.78	— 10.12	16.44 18.73	203
337	Stadler's Valley Phosphate.....	Claimed. Found.	2.50 2.40	8.18	9.23 9.44	9.35	— —	— —	10.00 11.13	4.00 4.09	22.34 22.34	337

413	Stadler's Vegetable and Grain Grower.....	Claimed. Found.	1.00 1.10	3.75	8.00 8.30	1.25 1.85	0.57	9.25 10.15	2.00 2.80	13.82 15.48	413
449	Stadler's Bone Meal and Potash.....	Claimed. Found.	1.50 2.80	9.55	8.26 8.18	10.93 10.93	6.67	16.00 19.19	3.00 3.35	20.27 27.92	449
533	Stadler's 16% Acid Phosphate.....	Claimed. Found.	4.50 3.15	10.74	16.00 17.46	11.00 10.13	0.32	17.00 17.59	2.00 2.80	15.84 17.29	533
534	Stadler's Pure Raw Bone Meal.....	Claimed. Found.	4.50 3.15	10.74	16.00 17.46	11.00 10.13	0.32	17.00 17.59	2.00 2.80	15.84 17.29	534
STANDARD GUANO COMPANY, BALTIMORE, MD.											
668	Standard Great Grain Grower.....	Claimed. Found.	1.00 0.95	3.24	8.00 8.28	1.08 1.08	0.33	8.50 9.36	4.00 5.78	15.53 17.84	668
669	Standard Mammoth Potato Grower.....	Claimed. Found.	2.00 2.25	7.67	8.00 8.47	1.02 1.02	0.32	8.50 9.49	10.00 9.64	25.24 26.50	669
STEDMAN CO., THE F. C., ATHENS, OHIO.											
18	Acme Fertilizer.....	Claimed. Found.	7.00 5.70	19.44	6.97 6.90	6.46 6.46	3.94	14.00 13.43	34.37 30.28	18	
SWIFT & COMPANY, CHICAGO, ILL., AND CLEVELAND, OHIO.											
4	Swift's Super-Phosphate.....	Claimed. Found.	2.00 2.10	7.16	8.00 9.14	1.00 1.28	0.40	9.00 10.42	2.00 1.93	17.45 18.64	4
5	Swift's Truck Grower.....	Claimed. Found.	1.00 1.15	3.92	8.00 9.09	1.50 1.34	0.42	8.50 10.43	4.00 3.85	15.84 17.38	5
6	Swift's Garden City Phosphate.....	Claimed. Found.	1.00 1.15	3.92	8.00 9.09	1.50 1.34	0.42	8.50 10.43	4.00 3.85	15.84 17.38	6

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					Percent.	Value.	Percent.	Value.						
	SWIFT & COMPANY, CHICAGO, ILL., AND CLEVELAND, OHIO—Concluded.	1913.												
22	Swift's Potato, Celery and Onion Grower.....	Claimed. Found.	1.00 1.23	4.19	5.00 6.09	6.03	80.50 0.57	5.50 6.66	10.00 9.72	19.17 20.61	22			
88	Swift's Diamond "B" Fertilizer.....	Claimed. Found.	3.00 3.10	10.57	8.00 9.21	9.12	1.00 1.59	9.00 10.80	5.00 5.07	24.01 25.50	88			
89	Swift's High Grade Acid Phosphate.....	Claimed. Found.	----- -----	----- -----	16.00 18.23	18.05	10.51 -----	18.74	-----	15.84 18.05	89			
107	Swift's Onion, Potato and Tobacco Fertilizer.....	Claimed. Found.	2.00 1.85	6.31	8.00 8.98	8.89	1.00 1.05	9.00 10.03	7.00 6.83	24.52 24.48	107			
165	Swift's Special Phosphate and Potash.....	Claimed. Found.	----- -----	----- -----	10.00 9.98	9.88	11.66 -----	11.64	2.00 1.83	12.00 11.80	165			
202	Swift's Special Potato Fertilizer.....	Claimed. Found.	2.00 2.05	6.99	8.00 8.24	8.16	1.00 1.28	9.00 9.52	10.00 10.28	25.85 26.34	202			
253	Swift's Grain Fertilizer.....	Claimed. Found.	1.00 1.20	4.09	8.00 8.95	8.86	1.00 1.08	8.50 10.03	2.00 1.91	13.74 15.29	253			

286	Swift's Early Potato and Vegetable Grower---	Claimed. Found.	4.00 3.45	11.76	6.00 7.67	7.59	a1.00 1.28	0.40	7.00 8.95	10.00 9.68	10.16	30.69 29.91	286
319	Swift's High Grade Phosphate and Potash---	Claimed. Found.	---	---	10.00 10.17	10.07	r1.02	---	---	4.00 3.52	---	14.10 13.77	319
367	Swift's Corn, Wheat and Oats Fertilizer	Claimed. Found.	1.00 1.15	3.92	11.00 12.09	11.97	a0.50 0.70	0.22	11.50 12.79	4.00 3.78	---	18.81 20.08	367
470	Swift's Pure Dissolved Animal Bone and Potash	Claimed. Found.	1.50 1.70	5.80	13.00 17.72	17.54	a5.00 a2.60	1.59	18.00 20.32	4.00 5.82	---	25.24 31.04	470
549	Swift's Pulverized Sheep Manure	Claimed. Found.	2.52 3.05	10.40	2.04	2.02	---	---	1.50 2.30	1.50 1.52	---	11.24 14.18	549
561	Swift's Diamond "F" Fertilizer	Claimed. Found.	---	---	8.00 7.55	7.47	r1.08	---	---	3.00 2.79	---	11.07 10.40	561
632	Swift's Champion Wheat and Corn Grower	Claimed. Found.	2.00 2.15	7.33	12.00 13.00	12.87	a1.00 0.84	0.26	13.00 13.84	2.00 2.60	---	21.41 23.19	632
648	Swift's Diamond "Q" Fertilizer	Claimed. Found.	---	---	10.00 10.55	10.44	r1.40	---	---	8.00 8.07	---	18.30 18.91	648
TENNESSEE CHEMICAL COMPANY, LOUISVILLE, KY., AND NASH- VILLE, TENN.													
232	Ox Potash Special	Claimed. Found.	1.00 1.20	4.09	7.00 8.09	8.01	0.75 0.96	0.30	---	7.00 8.49	---	17.92 21.31	232
THOMAS & SON CO., I. P., PHILADELPHIA, PA.													
43	Ohio Grain and Sugar Beet Fertilizer	Claimed. Found.	1.00 1.15	3.92	7.00 8.16	8.06	---	0.12	---	4.00 5.74	---	14.54 18.15	43
44	Grain and Grass Grower	Claimed. Found.	---	---	10.00 10.39	10.29	r0.35	---	10.74	2.00 2.65	---	12.00 13.07	44

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			Percent.	Value.	Available.		Insoluble.		Percent.	Value.			
					Percent.	Value.	Percent.	Value.					
THOMAS & SON CO., I. P., PHILADELPHIA, PA.—Concluded.													
254	Thomas' Triumph Fertilizer.....	1913. Claimed. Found.	1.00 1.90	6.48	8.00 8.75	8.66	0.64	0.20	9.39	2.00 4.65	4.88	13.43 20.22	254
320	Victor Potash Manure.....	Claimed. Found.	1.00 1.05	3.58	8.00 7.88	7.80	2.02	0.63	9.90	5.00 6.28	6.59	16.58 18.60	320
423	Improved Super-Phosphate.....	Claimed. Found.	1.00 2.15	7.33	9.00 8.95	8.86	0.64	0.20	9.59	2.00 4.84	5.08	14.42 21.47	423
480	Potato, Tobacco and Corn Fertilizer.....	Claimed. Found.	2.00 1.85	6.31	8.00 8.75	8.66	0.64	0.20	9.39	5.00 *4.76	6.24	21.29 21.41	480
604	Wheat Special.....	Claimed. Found.	0.50 0.75	2.56	12.00 13.82	13.68	1.21	0.38	15.03	-----	-----	13.59 16.62	604
633	Special Alkaline Fertilizer.....	Claimed. Found.	-----	-----	10.00 9.65	9.55	10.44	-----	10.09	4.00 4.93	5.18	14.10 14.73	633
634	S. C. Phosphate.....	Claimed. Found.	-----	-----	14.00 17.14	16.97	10.77	-----	17.91	-----	-----	13.86 16.97	634

670	16% Acid Phosphate.....	Claimed. Found.	----- -----	----- -----	16.00 17.84	17.66 -----	r0.50 r0.77	----- -----	16.50 18.61	----- -----	----- -----	15.84 17.66	670
TUSCARORA FERTILIZER COMPANY, CHICAGO, ILL. Manufactured by Armour Fertilizer Works, Chicago, Ill.													
146	Phosphate and Potash.....	Claimed. Found.	----- -----	----- -----	10.00 9.62	9.52 -----	r0.50 r0.77	----- -----	----- 10.39	2.00 2.28	----- 2.39	12.00 11.91	146
161	Soluble Phosphate and Potash.....	Claimed. Found.	----- -----	----- -----	10.00 9.97	9.87 -----	r0.50 r0.77	----- -----	----- 10.74	4.00 3.92	----- 4.12	14.10 13.99	161
215	Ammoniated Phosphate.....	Claimed. Found.	1.00 1.05	3.58 -----	9.00 9.72	9.62 -----	0.75 0.64	----- 0.20	----- 10.36	1.00 1.31	----- 1.38	13.60 14.78	215
224	Acid Phosphate.....	Claimed. Found.	----- -----	----- -----	14.00 16.68	16.22 -----	r0.50 r0.51	----- -----	----- 16.89	----- -----	----- -----	13.86 16.22	224
316	Tuscarora Standard.....	Claimed. Found.	2.00 1.85	6.31 -----	8.00 8.07	7.99 -----	0.75 1.46	----- 0.45	----- 9.53	2.00 2.26	----- 2.37	17.07 17.12	316
389	Tuscarora Chief.....	Claimed. Found.	1.00 1.10	3.75 -----	8.00 9.01	8.92 -----	0.75 0.51	----- 0.16	----- 9.52	4.00 4.38	----- 4.60	15.76 17.43	389
414	1-8-2 Fertilizer.....	Claimed. Found.	1.00 1.05	3.58 -----	8.00 8.60	8.51 -----	0.75 0.70	----- 0.22	----- 9.30	2.00 2.33	----- 2.45	13.66 14.76	414
672	Tuscarora Fruit and Potato.....	Claimed. Found.	2.00 2.15	7.33 -----	8.00 8.89	8.80 -----	0.75 1.66	----- 0.51	----- 10.55	10.00 8.57	----- 9.00	25.47 25.64	672
VIRGINIA-CAROLINA CHEMICAL CO., CINCINNATI, O.													
9	V. C. Wheat, Corn and Tobacco Grower.....	Claimed. Found.	1.00 1.20	----- 4.09	8.00 10.07	----- 9.97	1.50 1.82	----- 0.56	----- 11.89	4.00 4.55	----- 4.78	16.00 19.40	9

* From sulphate.

a Wholly from animal matter.
 r Wholly from rock.
 Note—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.	
			Percent.	Value.	Available.		Insoluble.		Total Percent.	Percent.			Value.
					Percent.	Value.	Percent.	Value.					
VIRGINIA-CAROLINA CHEMICAL CO., CINCINNATI, O.—Concluded.													
10	V. C. Bright Leaf Tobacco and Truck Grower.	1913. Claimed. Found.	2.00 2.40	8.18	6.00 7.16	1.50 1.85	9.01	0.57	*8.00 *8.02	10.51	21.09 26.35	10	
28	V. C. Standard Wheat and Corn Grower.	Claimed. Found.	1.00 1.30	4.43	11.00 12.89	1.50 1.37	14.26	0.42	3.00 3.67	3.85	17.92 21.46	28	
29	V. C. Victor Onion and Potato Special.	Claimed. Found.	2.00 2.60	8.87	8.00 8.69	1.50 1.46	10.15	0.45	8.00 *9.00	11.79	25.69 29.71	29	
30	V. C. I. X. L. Acid Phosphate.	Claimed. Found.	— —	—	16.00 17.91	1.50 1.96	18.87	—	— —	—	15.84 17.73	30	
31	V. C. High Grade Acid Phosphate.	Claimed. Found.	— —	—	14.00 17.85	1.50 1.96	18.81	—	— —	—	13.86 17.67	31	
64	V. C. Complete Fertilizer.	Claimed. Found.	2.00 2.05	6.99	8.00 8.31	1.50 1.53	9.84	—	2.00 2.15	2.26	17.31 17.48	64	
65	V. C. Champion Corn and Wheat Grower.	Claimed. Found.	1.00 1.35	4.60	8.00 8.57	1.50 1.92	10.49	0.60	2.00 2.35	2.47	13.90 16.15	65	

66	V. C. I. X. L. Onion Grower.....	Claimed. Found.	2.00 2.15	7.33	8.00 7.17	7.10	1.50 1.40	0.43	8.57	10.00 12.41	13.03	25.71 27.89	66
67	V. C. Prolific Grain and Grass Grower.....	Claimed. Found.	---	---	10.00 10.43	10.33	1.50 1.40	---	11.83	5.00 6.24	6.55	15.15 16.88	67
204	V. C. I. X. L. Tobacco Grower.....	Claimed. Found.	3.00 3.50	11.94	8.00 8.50	8.42	1.50 1.28	0.40	9.78	*7.00 *8.01	10.49	27.79 31.25	204
205	V. C. Monarch Acid and Potash Compound.....	Claimed. Found.	---	---	10.00 11.20	11.09	1.50 1.57	---	11.77	8.00 7.87	8.26	18.30 19.35	205
206	V. C. Monarch Grain and Grass Grower.....	Claimed. Found.	---	---	12.00 12.85	12.72	1.50 1.28	---	14.13	5.00 5.34	5.61	17.13 18.33	206
289	V. C. Diamond Potash Formula for Wheat and Corn.....	Claimed. Found.	0.50 0.78	2.66	9.00 10.92	10.81	1.50 1.28	0.40	12.20	5.00 4.34	4.56	16.34 18.43	289
290	V. C. Grain Food.....	Claimed. Found.	---	---	10.00 10.77	10.66	1.50 1.64	---	11.41	2.00 2.84	2.98	12.00 13.64	290
353	V. C. Acid and Potash King.....	Claimed. Found.	---	---	10.00 10.26	10.16	1.50 1.90	---	11.16	4.00 4.72	4.96	14.10 15.12	353
537	V. C. Plow Brand Corn and Tobacco Fertilizer	Claimed. Found.	1.00 1.60	5.46	8.00 9.79	9.69	1.50 1.72	0.53	11.51	*7.00 *8.00	10.45	20.97 26.16	537
587	V. C. Victor Acid and Potash Compound.....	Claimed. Found.	---	---	15.00 17.53	17.35	1.50 1.28	0.40	18.81	3.00 3.16	3.32	18.00 21.07	587
594	V. C. Diamond Corn and Tobacco Fertilizer.....	Claimed. Found.	2.00 1.60	5.46	10.00 7.96	7.88	1.50 2.40	0.74	10.36	*4.00 2.43	2.55	22.43 16.63	594
595	V. C. Monarch Wheat and Corn Grower.....	Claimed. Found.	1.00 1.25	4.26	12.00 13.72	13.58	1.50 1.66	---	15.38	4.00 3.43	3.60	19.49 21.44	595
651	V. C. High Grade Top Dresser for Wheat, Oats and Corn.....	Claimed. Found.	4.00 3.50	11.94	8.00 8.56	8.47	1.50 3.84	1.19	12.40	6.00 6.40	6.72	27.86 28.32	651

*From sulphate.

^a Wholly from animal matter.

Note—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

TABLE I—MIXED FERTILIZERS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Percent.	Value.	Insoluble.	Total Percent.	Percent.	Value.		
		1913.										
339	WELCH FERTILIZER COMPANY, THE, COLUMBUS, O.	Claimed. Found.	1.00 1.05	3.58	8.00 8.64	8.55	1.08	9.72	2.00 2.82	13.43 15.42	339	
386	Progress Grain Grower	Claimed. Found.	— —	— —	9.00 9.50	9.41	10.38	9.88	5.00 4.82	14.16 14.47	386	
387	Progress Potash Compound	Claimed. Found.	— —	— —	10.00 9.71	9.61	10.26	9.97	2.00 2.29	12.00 12.01	387	
388	Progress Potash Special	Claimed. Found.	— —	— —	14.00 14.65	14.50	10.06	14.71	— —	13.86 14.50	388	
487	Progress Soluble Phosphate	Claimed. Found.	1.00 1.30	4.43	11.00 9.27	9.18	1.02	10.29	3.00 4.14	17.45 18.28	487	
488	Progress Favorite	Claimed. Found.	1.00 1.00	3.41	8.00 7.92	7.84	0.77	8.69	4.00 4.70	15.53 16.43	488	
	Progress General Crop	Claimed. Found.	— —	— —	— —	— —	— —	— —	— —	— —	— —	

WESTERN UNION CHEMICAL CO., CLEVELAND, O.		1913.																		
68	Vegetable and Tobacco Manure.....	Claimed. Found.	1.00 1.10	3.75	8.00 8.63	8.54	0.50 1.02	0.32	8.50 9.65	7.00 7.68	8.06	18.84 20.67	68							
69	Grain and Potato Grower.....	Claimed. Found.	1.00 1.15	3.92	8.00 9.08	8.99	0.50 1.28	0.40	8.50 10.36	4.00 4.43	4.65	15.69 17.96	69							
70	International Phosphate.....	Claimed. Found.	----- -----	----- -----	14.00 14.49	14.35	r0.50 r2.11	----- -----	14.50 16.60	----- -----	----- -----	13.86 14.35	70							
168	Corn and Wheat Grower.....	Claimed. Found.	1.00 1.10	3.75	8.00 8.70	8.61	0.50 1.08	0.33	8.50 9.78	2.00 2.33	2.45	13.59 15.14	168							
169	Dissolved Phosphate and Potash.....	Claimed. Found.	----- -----	----- -----	10.00 10.61	10.50	r0.50 r0.96	----- -----	10.50 11.57	2.00 5.30	5.57	12.00 16.07	169							
338	Tiger Bone.....	Claimed. Found.	3.00 3.95	13.47	11.16	11.05	a7.36	4.49	20.00 18.52	----- -----	----- -----	25.33 29.01	338							
360	Herrick's Fertilizer with Potash.....	Claimed. Found.	2.00 2.10	7.16	8.00 8.31	8.23	0.50 1.53	0.47	8.50 9.84	2.00 2.66	2.79	17.00 18.65	360							
406	Ohio Farmers' Phosphate.....	Claimed. Found.	2.00 2.30	7.84	8.00 8.94	8.85	0.50 1.15	0.36	8.50 10.09	5.00 4.96	5.20	20.15 22.25	406							
542	16% Acid Phosphate.....	Claimed. Found.	----- -----	----- -----	16.00 16.24	16.08	r0.50 r2.06	----- -----	16.50 18.29	----- -----	----- -----	15.84 16.08	542							
WUICHERT FERTILIZER CO., THE, DAYTON, O.		1913.																		
104	"Onion and Truck" Fertilizer.....	Claimed. Found.	2.00 2.10	7.16	8.00 9.53	9.43	1.00 1.98	0.61	9.00 11.51	8.00 7.98	8.38	23.45 25.58	104							
105	16% Phosphate.....	Claimed. Found.	----- -----	----- -----	16.00 17.98	17.80	r1.00 r1.85	----- -----	----- 19.83	----- -----	----- -----	15.84 17.80	105							

* From sulphate.

r Wholly from rock.

a Wholly from animal matter.

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TABLE I—MIXED FERTILIZERS—Concluded.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.	
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.			
					Percent.	Value.	Percent.	Value.					
													Total Percent.
WUICHT FERTILIZER CO., THE, DAYTON, O.—Concluded.													
126	"Potash Special"-----	1913. Claimed. Found.	1.00 1.00	3.41 5.45	5.00 5.50	5.45	1.00 1.08	0.33	6.00 6.58	11.00 12.97	13.62	20.22 22.81	126
129	"Gem" Phosphate-----	Claimed. Found.	1.00 1.30	4.43	8.00 9.50	9.41	1.00 1.43	0.44	9.00 10.93	5.00 5.68	5.96	16.89 20.24	129
305	"Spot Cash" Fertilizer-----	Claimed. Found.	2.00 1.93	6.58	8.00 10.35	10.25	1.00 1.72	0.53	9.00 12.07	2.00 3.12	3.28	17.15 20.64	305
306	"Miami" Phosphate-----	Claimed. Found.	1.00 1.20	4.09	9.00 9.40	9.31	1.00 1.40	0.43	10.00 10.80	3.00 3.37	3.54	15.78 17.37	306
307	"Ruby" Phosphate-----	Claimed. Found.	1.00 1.25	4.26	9.00 9.47	9.38	1.00 2.23	0.69	10.00 11.70	1.00 1.58	1.66	13.68 15.99	307
451	"Golden Harvest" Fertilizer-----	Claimed. Found.	3.00 4.00	13.64	7.24	7.17	a5.68	3.46	15.00 12.92	10.00 12.41	13.03	31.98 37.30	451
495	Raw Bone and Phosphate-----	Claimed. Found.	2.00 2.05	6.99	8.00 8.51	8.42	a6.00	0.73	14.00 10.87	1.50 1.95	2.05	19.98 18.19	495

YOUNGSTOWN FERTILIZER COMPANY, YOUNGSTOWN, O.		1913.											
559	Buckeye State Crop Grower-----	Claimed.	2.00	-----	8.00	-----	1.00	-----	9.00	-----	2.00	-----	17.45
		Found.	2.30	7.84	10.87	10.76	2.43	0.75	13.30	2.64	2.51	21.99	559
560	Star Grain Grower-----	Claimed.	1.00	-----	8.00	-----	-----	-----	8.00	-----	2.00	-----	13.43
		Found.	1.10	3.75	8.50	8.42	0.77	0.24	9.27	2.77	2.04	15.18	560

a. Wholly from animal matter.

r Wholly from rock.

NOTE—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

* From sulphate.

†NOTE—This analysis is published at the request of the Manufacturer who was not satisfied with the first analysis of this brand. This duplicate sample was collected by a regular inspector of this Department and not furnished by the Manufacturer.

TABLE II—BONES.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	In Fine Bone		In Med. Bone.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
589	ALLIANCE FERTILIZER CO., THE, ALLIANCE, O.	1913.										
		Claimed. Found.	2.00 3.20	10.91	22.35 18.10		4.26 2.60				24.82 31.61	589
402	AMERICAN FERTILIZER COMPANY, CHICAGO, ILL.	1913.										
		Claimed. Found.	3.00 2.83	9.65	20.51 16.61		7.20 4.39				28.98 30.65	402
424	"Union Brand" Steamed Bone Meal.....	Claimed. Found.	1.00 0.82	2.80	19.10 15.47		13.27 8.09				25.91 26.36	424
432	"Union Brand" Pure Raw Bone Meal.....	Claimed. Found.	4.50 4.45	15.17	16.67 13.50		4.70 2.87				30.35 31.54	432
433	"Union Brand" Pure Bone Meal and Potash....	Claimed. Found.	1.00 1.00	3.41	14.17 11.48		5.79 3.53		3.00 3.70	3.89	21.56 22.31	433

[illegible]

* From sulphate.

TABLE II—BONES—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	In Fine Bone.	In Med. Bone.	Total Percent.	Percent.	Value.	Percent.		
		1913.										
326	THE CINCINNATI PHOSPHATE CO., CINCINNATI, O.	Claimed. Found.	3.00 2.96	10.06	17.75	14.38	20.00 21.31	6.56	4.00		25.23 28.44	326
	DARLING & COMPANY, CHICAGO, ILL.	1913.										
120	Darling's Bone Blend	Claimed. Found.	1.00 1.50	5.12	12.47	10.10	16.00 18.09	3.62	2.21	3.00 4.12	18.56 21.76	120
438	Darling's Pure Bone and Potash	Claimed. Found.	2.00 2.16	7.33	20.92	16.96	24.25 25.21	4.29	2.62	6.00 5.49	31.31 32.66	438
440	Darling's Pure Ground Bone	Claimed. Found.	2.25 2.60	8.87	21.22	17.19	28.00 27.88	6.16	3.76		28.67 29.82	440
441	Darling's Ground Raw Bone	Claimed. Found.	4.00 4.50	15.35	14.30	11.56	21.00 24.24	9.94	6.06		29.89 32.99	441

TABLE II—BONES—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	In Fine Bone		In Med. Bone.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
56	INDEPENDENT PACKERS' FERTILIZING CO., COLUMBUS, O. Bone Meal.....	1913. Claimed. Found.	1.00	3.24	22.74	18.42	5.34	3.26			23.66	56
			0.95								24.92	
547	INTERNATIONAL AGRICULTURAL CORPORATION (BUFFALO FERTILIZER WORKS), BUFFALO, N. Y., AND CINCINNATI, O. Bone Meal.....	1913. Claimed. Found.	3.00	13.13	17.56	14.22	5.85	3.57			26.73	547
			3.85								30.92	
475	JARECKI CHEMICAL CO., THE, SANDUSKY AND CINCINNATI, O. Pure Ground Bone.....	1913. Claimed. Found.	3.00	10.40	15.54	12.59	8.19	5.00			25.23	475
			3.05								27.99	
370	LOUISVILLE FERTILIZER CO., LOUISVILLE, KY., AND NASHVILLE, TENN. Eagle Bone Meal.....	1913. Claimed. Found.	3.00	10.40	22.54	18.26	2.51	1.53			26.23	370
			3.05								30.19	

538	MARIETTA BONE & PHOSPHATE CO., THE, MARIETTA, OHIO.	1913. Claimed. Found.	4.50	16.88	11.71	9.49	10.81	6.59	20.00	30.35
			4.95						22.52	32.96 538
223	MORRIS & COMPANY, CHICAGO, ILL.	1913. Claimed. Found.	2.50						28.00	29.53
			3.45	11.76	16.86	13.66	10.33	6.30	27.40	31.72 223
607	Big One—Ground Raw Bone.	Claimed. Found.	4.00						24.00	31.64
			4.30	14.66	17.88	14.48	8.41	5.13	26.29	34.27 607
162	NITRATE AGENCIES COMPANY, NEW YORK, N. Y., AND COLUMBUS, OHIO.	1913. Claimed. Found.	1.00						29.00	25.16
			0.88	3.00	21.53	17.44	12.11	7.39	33.64	27.83 162
662	OHIO STANDARD CHEMICAL CO., THE, TOLEDO, OHIO.	1913. Claimed. Found.	1.00						29.00	25.16
			1.05	3.58	26.61	21.55	6.65	4.06	33.26	29.19 662
543	PITTSBURGH PROVISION AND PACKING CO., PITTSBURGH, PA.	1913. Claimed. Found.	4.50						22.00	31.85
			4.95	16.88	13.86	11.23	7.63	4.65	21.49	32.76 543
544	Crescent's Butchers' Ground Bone	Claimed. Found.	3.00						16.00	22.23
			3.95	13.47	15.30	12.39	2.29	1.40	17.59	27.26 544
557	Pure Raw Bone Meal	Claimed. Found.	4.50						21.00	31.10
			5.73	19.54	16.02	12.98	3.76	2.29	19.78	34.81 557

* From sulphate.

TABLE II—BONES—Concluded.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	In Fine Bone		In Med. Bone.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
548	RAUH & SONS FERTILIZER CO., E., INDIANAPOLIS, IND.	1913.										
		Claimed. Found.	2.00 2.05	6.99	21.05	17.05	8.60	5.25			23.32 29.29	548
3	SMITH AGRICULTURAL CHEMICAL CO., THE, COLUMBUS, OHIO.	1913.										
		Claimed. Found.	1.00 1.90	6.48	21.57	17.47	6.26	3.82			23.66 27.77	3
48	STADLER RENDERING & FERTILIZER CO., J. L. & E., CLEVELAND, OHIO.	1913.										
		Claimed. Found.	3.50 4.25	14.49	16.03	12.98	5.78	3.53			26.94 31.00	48
7	SWIFT & COMPANY, CHICAGO, ILL., AND CLEVELAND, OHIO.	1913.										
		Claimed. Found.	3.00 3.75	12.79	19.79	16.03	4.20	2.56			28.23 31.38	7

8	Swift's Ground Steamed Bone.....	Claimed. Found.	2.00 2.15	7.33	19.41	15.72	4.70	2.87	20.00 24.11	---	---	21.82 25.92	8
17	Swift's Pure Bone Meal and Potash.....	Claimed. Found.	2.25 2.25	7.57	19.57	15.85	4.74	2.89	25.00 24.31	3.00 3.59	---	29.57 30.18	17
241	Swift's Pure Bone Meal and Blood.....	Claimed. Found.	4.50 4.70	16.03	16.53	13.39	5.66	3.49	23.00 22.19	---	---	32.60 32.87	241
396	Swift's Pure Raw Bone Meal.....	Claimed. Found.	4.50 4.40	15.00	17.44	14.13	6.29	3.84	23.00 23.73	---	---	32.62 32.97	396
456	Swift's Ground Beef Bone.....	Claimed. Found.	2.50 2.40	8.18	22.90	18.55	6.65	4.06	27.00 29.55	---	---	28.78 30.79	456
TUSCARORA FERTILIZER CO., CHICAGO, ILL. Manufactured by Armour Fertilizer Works, Chicago, Ill.													
177	Bone Meal.....	Claimed. Found.	2.00 2.50	8.53	19.69	15.99	9.48	5.78	27.00 23.17	---	---	27.07 30.26	177
VIRGINIA-CAROLINA CHEMICAL CO., CINCINNATI, OHIO.													
586	V. C. Ground Animal Bone.....	Claimed. Found.	2.00 2.60	8.87	20.36	16.49	7.72	4.71	28.00 28.08	---	---	27.82 30.07	586
WUICHEL FERTILIZER CO., THE, DAYTON, OHIO.													
115	Superior Pure Raw Bone.....	Claimed. Found.	4.00 4.70	16.03	15.15	12.27	6.34	3.87	20.00 21.49	---	---	28.64 32.17	115

* From sulphate.

TABLE III—FERTILIZING MATERIALS—UNMIXED.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Percent.	Value.	Insoluble.	Total Percent.	Percent.	Value.		
171	AMERICAN AGRICULTURAL CHEMICAL CO., THE, NEW YORK, N. Y., AND CLEVELAND, OHIO.	1913. Claimed. Found.	18.00 18.20	49.69							49.14 49.69	171
434		Claimed. Found.							*48.00 *48.24	50.65	50.40 50.65	434
576		Claimed. Found.							49.00 49.34	41.45	41.16 41.45	576
531	AMERICAN COAL PRODUCTS CO., NEW YORK, N. Y. ARMOUR FERTILIZER WORKS, CHICAGO, ILL.	1913. Claimed. Found.	25.00 25.40	69.34							68.25 69.34	531
138		1913. Claimed. Found.							50.00 48.98	41.14	42.00 41.14	138

139	Nitrate of Soda.....	Claimed. Found.	18.00 19.20	52.42	---	---	---	---	---	49.14 52.42	139
610	German Kainit..... COE-MORTIMER CO., THE, NEW YORK, N. Y.	Claimed. Found.	---	---	---	---	---	---	---	12.00 12.56	610
522	†Thomas Phosphate Powder (Basic Slag Phosphate)..... FEDERAL CHEMICAL CO., COLUMBIA, TENN.	Claimed. Found.	---	---	---	---	---	---	---	---	---
60	Tennessee Brown Phosphate Rock..... GERMAN KALI WORKS, INC., NEW YORK, N. Y.	Claimed. Found.	---	---	---	---	---	---	---	---	---
117	Muriate of Potash..... GROVES COMPANY, THE, CINCINNATI, OHIO.	Claimed. Found.	---	---	---	---	---	---	---	---	---
524	Nitrate of Soda..... INTERNATIONAL AGRICULTURAL CORPORATION (BUFFALO FERTILIZER WORKS), BUFFALO, N. Y., AND CINCINNATI, OHIO.	Claimed. Found.	18.00 19.06	52.01	---	---	---	---	---	---	---
490	Muriate of Potash.....	Claimed. Found.	---	---	---	---	---	---	---	---	---
578	Nitrate of Soda.....	Claimed. Found.	18.00 18.75	51.19	---	---	---	---	---	---	---
621	†Animal Tankage.....	Claimed. Found.	6.00 8.25	22.52	---	---	---	---	---	---	---

†Total Phosphoric Acid figured at 60 cents per unit.

r Wholly from rock.

*** From sulphate.**

TABLE III—FERTILIZING MATERIALS UNMIXED—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Percent.	Value.	Insoluble.	Total Percent.	Percent.	Value.		
540	MARIETTA BONE & PHOSPHATE CO., THE, MARIETTA, OHIO.	1913.										
		Claimed. Found.							50.00 53.40	----- 44.86	42.00 44.86	540
76	NITRATE AGENCIES COMPANY, NEW YORK, N. Y., AND COLUMBUS, OHIO.	1913.										
		Claimed. Found.	18.00 18.80	51.32							49.14 51.32	76
508	Sulphate of Potash.....	Claimed. Found.							*48.00 *49.30	----- 51.76	50.40 51.76	508
519	Muriate of Potash.....	Claimed. Found.							50.00 51.16	----- 42.97	42.00 42.97	519
520	Ground Blood.....	Claimed. Found.	16.00 16.10	43.95							43.68 43.95	520
521	†Ground Tankage.....	Claimed. Found.	7.00 8.00	21.84				14.00 16.87			27.51 30.16	521

[illegible]

†Total Phosphoric Acid figured at 60 cents per unit.

r Wholly from rock.

* From sulphate.

TABLE III—FERTILIZING MATERIALS UNMIXED—Concluded.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Percent.	Value.	Insoluble.	Total Percent.	Percent.	Value.		
		1913.										
510	SWIFT & COMPANY, CHICAGO, ILL., AND CLEVELAND, OHIO.	Claimed. Found.							50.00 52.56	42.00 44.15	42.00 44.15	510
527	Swift's Pure Ground Dried Blood.	Claimed. Found.	16.00 16.93	46.22							43.68 46.22	527
664	†Swift's Screened Hardwood Ashes.	Claimed. Found.			0.82 0.65	10.64		2.00 1.46	5.00 6.15	5.81 7.11	5.81 7.11	664
	THOMSON & SON, A. H., COSHOCTON, OHIO.	1913.										
620	†Slaughter House Tankage.	Claimed. Found.	7.50 7.13	19.46				11.57 10.84	0.56 0.36	0.29	27.89 26.25	620

VIRGINIA-CAROLINA CHEMICAL CO., CINCINNATI, O.					
	1913.				
	Claimed.	Found.			
221 V. C. Muriate of Potash.....			50.00	41.33	42.00
			49.20		41.33
291 V. C. Nitrate of Soda.....	18.00				49.14
	19.05	52.01			52.01
					291

†Total Phosphoric Acid figured at 60 cents per unit.

r Wholly from rock.

* From sulphate.
 † Total Phosphoric Acid figured at 60 cents per unit.
 ‡ Potash from Carbonate given same valuation as Sulphate; while total Phosphoric Acid given valuation same as from rock.

DANGER! STOP! LOOK! LISTEN!

These brands show a deficiency in ingredients claimed; equivalent in total money value to four per cent. or more of Manufacturers' claims. Present law requires Manufacturer to give one hundred cents on the dollar. Therefore, these brands are quarantined and placed in the **CONTAGIOUS DISEASE COLUMN**.

All samples drawn in accordance with the law and analyzed by competent Chemist.

TABLES I AND III—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash (When Included.)		Total Value.	Record Number.
			Percent.	Value.	Percent.	Value.	Insoluble.	Total Percent.	Percent.	Value.		
354	AMERICAN AGRICULTURAL CHEMICAL CO., THE, CLEVELAND, O. Bradley's Complete Manure for Potatoes and Vegetables.	1913. Claimed. Found.	4.00	12.38	8.00	8.04	0.50	8.50	7.00	6.92	29.07	354
			3.63		8.12		1.40	9.52	6.56		27.77	
369	AMERICAN FERTILIZER CO., CHICAGO, ILL. "Union Brand" Kings' Favorite ARMOUR FERTILIZER WORKS, CHICAGO, ILL.	1913. Claimed. Found.	1.00	2.90	8.00	7.46	1.00	9.00	3.00	3.74	15.09	369
			0.85		7.54		0.70	8.24	3.56		14.32	
84	12-5 Fertilizer	Claimed. Found.			12.00	11.51	0.50	11.89	5.00	4.89	17.13	84
					11.63		0.26		4.66		16.40	

145	CENTRAL MANUFACTURING CO., LOCKLAND, O.	1913. Claimed. Found.	---	---	14.00 11.83	---	11.71 11.71	1.00 1.40	---	15.00 13.23	---	---	---	13.86 11.71	145
366	ELIXIR CHEMICAL CO., THE, COLUMBUS, O.	1913. Claimed. Found.	1.00 0.78	---	1.00 0.88	2.66	0.87	---	---	0.88	---	---	---	4.40 3.53	366
641	FLOWER CITY PLANT FOOD CO., ROCHESTER, N. Y.	1913. Claimed. Found.	12.00 9.20	---	12.00 9.96	31.37	9.86	10.13	---	10.09	11.00 11.30	---	---	64.35 53.10	641
130	GROVES COMPANY, THE, CINCINNATI, O.	1913. Claimed. Found.	1.00 0.93	---	8.00 7.73	3.17	7.65	2.00 0.64	---	10.00 8.37	2.00 2.03	---	---	14.05 13.15	130
211	INTERNATIONAL AGRICULTURAL COR- PORATION (BUFFALO FERTILIZER WORKS), BUFFALO, N. Y., AND CINCINNATI, O.	1913. Claimed. Found.	4.00 2.85	---	8.00 8.89	9.72	8.80	1.00 1.79	---	9.00 10.68	7.00 5.84	---	---	29.22 25.20	211
479	JARECKI CHEMICAL CO., THE, SANDUSKY AND CINCINNATI, O.	1913. Claimed. Found.	1.00 0.90	---	11.27	3.07	11.16	15.09	4.08	29.00 26.36	---	---	---	20.81 18.91	479
156	Super-Phosphate and Potash.	1913. Claimed. Found.	---	---	10.00 9.67	---	9.57	1.00 1.46	---	11.00 11.13	4.00 3.70	---	---	14.10 13.46	156

* From sulphate.

a Wholly from animal matter.

r Wholly from rock.
Note—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

DANGER! STOP! LOOK! LISTEN!—Continued.

TABLES I AND III—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash (When Included.)		Total Value.	Record Number.	
			Percent.	Value.	Percent.	Value.	Insoluble.	Total Percent.	Percent.	Value.			
	MARIETTA BONE & PHOSPHATE CO., THE, MARIETTA, O.	1913.	2.50 2.00	6.82	8.00 8.73	8.64	2.00 1.31	0.41	10.00 10.04	6.00 4.96	5.21	23.37 21.08	233
233	Potato and Truck Special.....	Claimed. Found.											
626	1-8-8.....	Claimed. Found.	1.00 0.88	3.00	8.00 7.49	7.42	2.00 1.08	0.33	10.00 8.57	8.00 7.69	8.07	20.35 18.82	626
	NEW PROCESS FERTILIZER CO., THE, COLUMBUS, O.	1913.											
114	O. K. Chief.....	Claimed. Found.			10.00 9.43	9.34	r1.12		10.55	2.00 1.85	1.94	12.00 11.28	114
	OHIO STANDARD CHEMICAL CO., THE, TOLEDO, O.	1913.											
478	Muriate of Potash.....	Claimed. Found.								49.00 46.80	39.31	41.16 39.31	478

1913.		2.00	6.00	1.00	7.93	10.00	9.90	23.57	
314	PIEDMONT-MT. AIRY GUANO CO., BALTIMORE, MD.	1.20	4.09	0.57	0.18	9.43		21.46	314
1913.									
505	QUEEN CITY FERTILIZER CO., CINCINNATI, O.			r1.00				15.84	505
	Acid Phosphate			r0.57				15.20	
573	Miami Valley Grain Grower	1.50	8.00	1.00		2.50		15.98	
		1.15	3.92	0.90	0.28	2.24	2.35	15.02	573
1913.									
534	STADLER RENDERING & FERTILIZER CO., THE J. L. & H., CLEVELAND, O.	4.50						32.60	
	Stadler's Pure Raw Bone Meal	3.15	10.74	a0.36	6.32	20.98		27.57	534
1913.									
18	STEDMAN COMPANY, THE F. C., ATHENS, O.	7.00						34.37	
	Acme Fertilizer	5.70	19.44	a6.46	3.94	13.43		30.28	18
1913.									
318	SMITH AGRICULTURAL CHEMICAL CO., THE, COLUMBUS, O.	10.00						27.30	
	Animal Tankage	8.80	24.02					24.02	318
1913.									
561	SWIFT & COMPANY, CHICAGO, ILL. AND CLEVELAND, O.							11.07	
	Swift's Diamond "F" Fertilizer		8.00	r1.08		3.00	2.93	10.40	561
			7.55	7.47	6.83	2.79			

* From sulphate.

a Wholly from animal matter.

r Wholly from rock.

Note—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

DANGER! STOP! LOOK! LISTEN!—Concluded.

TABLES I AND III—Concluded.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash (When Included.)		Total Value.	Record Number.	
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.			
					Percent.	Value.	Percent.	Value.					
													Total Percent.
620	THOMSON & SON, A. H., COSHOCTON, O.	1913.											
	Slaughter House Tankage	Claimed. Found.	7.50 7.13	19.46							0.56 0.35	27.89 26.25	620
594	VIRGINIA-CAROLINA CHEMICAL CO., CINCINNATI, O.	1913.											
	V. C. Diamond Corn and Tobacco Fertilizer	Claimed. Found.	2.00 1.60	5.46	10.00 7.96	7.88	1.50 2.40				*4.00 2.43	22.43 16.63	594
495	WUICHEL FERTILIZER CO., THE, DAYTON, O.	1913.											
	Raw Bone and Phosphate	Claimed. Found.	2.00 2.05	6.99	8.00 8.51	8.42	2.00 2.36				1.50 1.95	19.98 18.19	495

a Wholly from animal matter.

r Wholly from rock.

Note—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

* From sulphate.

CAUTION! CAUTION! CAUTION!

Some of these brands show a slight deficiency in ingredients claimed; equivalent in total money value to less than four per cent. of manufacturers' claims. In some instances deficiency amounts to only a few cents. For that reason these brands do not belong in the **CONTAGIOUS DISEASE COLUMN**.

All samples drawn in accordance with law and analyzed by competent chemist.

TABLES I AND III.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash (When Included.)		Total Value.	Record Number.	
			Percent.	Value.	Available.		Insoluble.	Total Percent.	Percent.	Value.			
					Percent.	Value.							
													Percent.	Value.
ARMOUR FERTILIZER WORKS, CHICAGO, ILL.													
39	Star Phosphate.....	1913. Claimed. Found.	----- ----- -----	----- ----- -----	14.00 13.91	13.77	r0.50 r0.28	----- ----- -----	----- ----- -----	----- ----- -----	13.86 13.77	39	
41	Bone, Potash and Phosphate.....	Claimed. Found.	1.00 1.20	4.09	13.00 12.19	12.07	5.25 6.87	2.13	19.06	4.00 2.82	2.96	22.11 21.25	41
118	Banner Brand.....	Claimed. Found.	----- -----	-----	10.00 10.04	9.94	r0.50 r0.32	-----	10.36	8.00 7.80	8.19	18.30 18.13	118
138	Muriate of Potash.....	Claimed. Found.	----- -----	-----	-----	-----	-----	-----	-----	50.00 48.98	41.14	42.00 41.14	138
331	Phosphate and Potash.....	Claimed. Found.	----- -----	-----	10.00 9.88	9.48	r0.50 r0.57	-----	10.15	2.00 2.16	2.27	12.00 11.75	331
a Wholly from animal matter.													* From sulphate.
r Wholly from rock.													

CAUTION! CAUTION! CAUTION!—Continued.
TABLES I AND III—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash (When Included.)		Total Value.	Record Number.
			Percent.	Value.	Percent.	Value.	Insoluble.	Total Percent.	Percent.	Value.		
275	CANTON FERTILIZER & CHEMICAL CO., THE, CANTON, O.	1913. Claimed. Found.	---	---	10.00 9.89	9.79	---	10.15	2.00 1.89	---	12.00 11.77	275
282	Peerless Dissolved Phosphate with Potash Peerless Super-Phosphate ENTERPRISE GUANO COMPANY, BALTIMORE, MD.	Claimed. Found.	2.00 1.80	6.14	8.00 7.92	7.84	0.30	8.88	2.00 2.16	---	16.84 16.55	282
462	High Grade Potash Mixture FARMERS' FERTILIZER COMPANY, THE, COLUMBUS, O.	Claimed. Found.	---	---	10.00 9.78	9.68	---	10.29	5.00 4.78	---	15.15 14.70	462
42	Dissolved Phosphate and Potash	Claimed. Found.	---	---	10.00 9.85	9.75	---	11.00	2.00 1.93	---	12.00 11.84	42
183	Farmers' Twelve-Five	Claimed. Found.	---	---	12.00 12.12	12.00	---	13.91	5.00 4.41	---	17.13 16.43	183

CAUTION! CAUTION! CAUTION!—Continued.
TABLES I AND III—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash (When Included.)		Total Value.	Record Number.
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
	CANTON FERTILIZER & CHEMICAL CO., THE, CANTON, O.	1913.										
275	Peerless Dissolved Phosphate with Potash	Claimed. Found.			10.00 9.89	9.79			2.00 1.89		12.00 11.77	275
282	Peerless Super-Phosphate	Claimed. Found.	2.00 1.80	6.14	8.00 7.92	7.84			2.00 2.16		16.84 16.55	282
	ENTERPRISE GUANO COMPANY, BALTIMORE, MD.	1913.										
462	High Grade Potash Mixture	Claimed. Found.			10.00 9.78	9.68			5.00 4.78		15.15 14.70	462
	FARMERS' FERTILIZER COMPANY, THE, COLUMBUS, O.	1913.										
42	Dissolved Phosphate and Potash	Claimed. Found.			10.00 9.85	9.75			2.00 1.98		12.00 11.84	42
183	Farmers' Twelve-Five	Claimed. Found.			12.00 12.12	12.00			5.00 4.41		17.13 16.43	183

[illegible]

a Wholly from animal matter.

NOTE—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

* From sulphate.

CAUTION! CAUTION! CAUTION!—Concluded.

TABLES I AND III—Concluded.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash (When Included.)		Total Value.	Record Number.
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
384	LOUISVILLE FERTILIZER CO., LOUISVILLE, KY., AND NASHVILLE, TENN. Eagle Potash Mixture	1913. Claimed. Found.	---	---	10.00	9.27	10.50	---	2.00	---	12.00	384
			---	---	9.36	9.27	10.16	---	2.40	2.52	11.79	
539	MARIETTA BONE & PHOSPHATE CO., THE, MARIETTA, O. 11-8-3	1913. Claimed. Found.	1.50	---	8.00	---	2.00	---	3.00	---	16.81	539
			1.25	4.28	8.18	8.10	1.79	0.55	3.28	3.44	16.35	
652	NITRATE OF SODA PIONEER FERTILIZER CO., CHICAGO, ILL. AND CLEVELAND, O.	1913. Claimed. Found.	18.50	---	---	---	---	---	---	---	50.51	652
			18.35	50.10	---	---	---	---	---	---	50.10	
410	Pioneer High Grade Phosphate and Potash	1913. Claimed. Found.	---	---	10.00	---	---	---	4.00	---	14.10	410
			---	---	10.05	9.95	11.08	---	3.57	3.75	13.70	

46	STADLER RENDERING & FERTILIZER CO., THE J. L. & H., CLEVELAND, O.	1913. Claimed. Found.	2.50 2.25	7.67	9.23 10.17	10.07	a0.77 2.23	0.69	10.00 12.40	8.00 7.07	7.42	28.54 25.85	46
107	SWIFT & COMPANY, CHICAGO, ILL. AND CLEVELAND, O.	1913. Claimed. Found.	2.00 1.85	6.31	8.00 8.98	8.89	a1.00 1.05	0.33	9.00 10.03	*7.00 *6.83	8.95	24.52 24.48	107
165	Swift's Special Phosphate and Potash	Claimed. Found.	---	---	10.00 9.98	9.88	r1.66	---	11.64	2.00 1.83	1.92	12.00 11.80	165
286	Swift's Early Potato and Vegetable Grower	Claimed. Found.	4.00 3.45	11.76	6.00 7.67	7.59	a1.00 1.28	0.40	7.00 8.95	10.00 9.68	10.16	30.69 29.91	286
319	Swift's High Grade Phosphate and Potash	Claimed. Found.	---	---	10.00 10.17	10.07	r1.02	---	11.19	4.00 3.52	3.70	14.10 13.77	319
146	TUSCARORA FERTILIZER CO., CHICAGO, ILL. Manufactured by Armour Fertilizer Works, Chicago, Ill.	1913. Claimed. Found.	---	---	10.00 9.62	9.52	r0.50 r0.77	---	10.39	2.00 2.28	2.39	12.00 11.91	146
161	Soluble Phosphate and Potash	Claimed. Found.	---	---	10.00 9.97	9.87	r0.50 r0.77	---	10.74	4.00 3.92	4.12	14.10 13.99	161
221	VIRGINIA-CAROLINA CHEMICAL CO., CINCINNATI, O.	1913. Claimed. Found.	---	---	---	---	---	---	---	50.00 49.20	---	42.00 41.33	221
	V. C. Muriate of Potash	---	---	---	---	---	---	---	---	---	---	---	---

* From sulphate.

a Wholly from animal matter.

r Wholly from rock.

NOTE—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

THE FOLLOWING BRANDS ARE ALL RIGHT, BUT SHOW EVIDENCE OF EITHER POOR MIXING OR GREAT IRREGULARITY OF COMPOSITION OF RAW MATERIALS.

TABLE I—MIXED FERTILIZERS.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
	AMERICAN AGRICULTURAL CHEMICAL CO., THE, NEW YORK AND CLEVELAND, O.	1913.										
24	Cleveland Dryer's Potato, Tobacco and General Crop Fertilizer.....	Claimed. Found.	1.00 1.30	4.43	8.00 9.18	9.09	0.50 1.31	8.50 10.49	4.00 5.13	15.69 18.91	24	
35	Ohio Onion and Truck Manure.....	Claimed. Found.	2.00 2.25	7.67	8.00 8.73	8.64	0.50 1.98	8.50 10.71	10.00 11.62	25.40 29.12	35	
309	Sugar Beet Special.....	Claimed. Found.	1.00 1.25	4.26	8.00 9.85	9.75	0.50 1.46	8.50 11.31	4.00 4.20	15.69 18.87	309	
616	Milson's Buffalo Complete Manure.....	Claimed. Found.	1.00 2.20	7.50	8.00 10.45	10.35	0.50 1.82	8.50 12.27	4.00 2.18	15.69 20.70	616	
	AMERICAN AGRICULTURAL CHEMICAL CO., THE, CINCINNATI, O. Bowker Fertilizer Works.	1913.										
420	Bowker's Acid Phosphate.....	Claimed. Found.	12.00 16.22	16.08	10.50 16.69	16.08	12.50 17.1	11.88 16.08	420			

530	Bowker's High Grade Fertilizer.....	Claimed. Found.	3.00 3.40	11.59	8.00 10.01	0.50 0.96	8.50 10.97	*6.00 *6.51	8.53	26.17 30.03	530
	BARWELL, J. W., WAUKEGAN, ILL.	1913.									
619	Barwell's Plant Grower and Land Renovator..	Claimed. Found.	6.10 12.93	44.09	5.25 2.63	5.25 1.59	10.50 4.22	6.00 *8.07	10.57	37.06 57.75	619
	BELL FERTILIZER CO., GEO. A., WHEELERSBURG, O.	1913.									
600	Half and Half.....	Claimed. Found.	2.00 5.53	18.86	12.00 10.61	4.16	14.77			18.70 30.65	600
	ENTERPRISE GUANO CO., BALTIMORE, MD.	1913.									
461	Grain and Grass Compound.....	Claimed. Found.			10.00 11.82	0.50 0.38	12.20	2.00 5.85	6.14	12.00 17.84	461
463	Complete Fertilizer.....	Claimed. Found.	1.00 1.98	6.75	8.00 9.77	1.00 0.26	10.03	2.00 2.33	2.45	13.74 18.95	463
	FERTILIZER COMPANY OF PARIS, ILL., PARIS, ILL.	1913.									
562	"Farmers Friend Grain Grower".....	Claimed. Found.	4.00 5.90	20.12	10.00 8.00	6.00 7.73	16.00 15.73			25.40 30.44	562
	GROVES COMPANY, THE, CINCINNATI, O.	1913.									
546	Pure Bone and Potash Mixture.....	Claimed. Found.	1.00 2.10	7.16	10.44	9.01	20.00 19.45	5.00 7.74	8.13	23.66 31.13	546
	HAMM COMPANY, THE M., WASHINGTON C. H., O.	1913.									
280	General Crop.....	Claimed. Found.	1.00 1.60	5.46	8.00 8.30	1.00 3.84	9.00 12.14	2.00 2.41	2.53	13.74 17.40	280

* From sulphate.

a Wholly from animal matter.
r Wholly from rock.
Note—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

ALL RIGHT, BUT SHOW EVIDENCE OF POOR MIXING—Continued.
TABLE I—MIXED FERTILIZER—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
265	HIRSH, STEIN & CO., CHICAGO, ILL. Calumet Brand Wheat, Corn and Oat Special.	1913. Claimed.	1.00	4.26	8.00	9.91	1.00	0.26	9.00	4.00	16.88	265
		Found.	1.25	4.26	10.01	9.91	0.83	0.26	10.84	*4.39	5.75		20.18
372	HOLDEN, W. F., ASHTABULA, O. Pure Animal Fertilizer.	1913. Claimed.	2.50	16.54	10.50	11.28	10.00	2.89	20.50		25.03	372
		Found.	4.85	16.54	11.39	11.28	14.73	2.89	16.12				30.71
49	INTERNATIONAL AGRICULTURAL CORPORATION (BUFFALO FERTILIZER WORKS), BUFFALO, N. Y., AND CINCINNATI, O. Grain and Grass Grower.	1913. Claimed.	1.00	4.09	9.00	10.69	1.00	0.57	10.00	2.00	14.73	49
		Found.	1.20	4.09	10.80	10.69	1.85	0.57	12.65	2.32	2.44		17.79
50	Farmers' Choice.	1913. Claimed.	1.00	4.26	8.00	10.07	1.00	0.51	9.00	5.00	16.89	50
		Found.	1.26	4.26	10.17	10.07	1.66	0.51	11.83	5.32	5.59		20.43

		1913. Claimed. Found.	1.00 1.15	3.92	8.00 8.76	8.67	0.75	0.55	2.00 3.30	3.47	13.66 16.61	292
292	LOUISVILLE FERTILIZER CO., LOUIS- VILLE, KY., AND NASHVILLE, TENN.	Claimed. Found.	1.00 1.15	3.92	8.00 8.76	8.67	0.75 1.79	0.55	2.00 3.30	3.47	13.66 16.61	292
293	Eagle Corn and Wheat Grower.	Claimed. Found.	1.00 1.00	3.41	7.00 9.14	9.05	0.75 1.53	0.47	4.00 4.70	4.94	14.77 17.87	293
391	Eagle Grain Grower.	Claimed. Found.	2.00 1.85	6.31	10.00 12.60	12.47	0.75 1.66	0.51	2.00 *3.49	4.57	19.57 23.86	391
593	Eagle Two-Ten-Two Fertilizer.	Claimed. Found.	1.00 0.85	2.90	7.00 8.69	8.60	0.75 1.28	0.40	7.00 8.07	8.47	17.92 20.37	593
	Eagle Potash Special.	Claimed. Found.	1.00 0.85	2.90	7.00 8.69	8.60	0.75 1.28	0.40	7.00 8.07	8.47	17.92 20.37	593
	MACE & MANSFIELD, GREENVILLE, O.	1913.										
500	Perfection Crop Maker and Potash.	Claimed. Found.	11.00 13.23		13.10		2.00 1.92		2.00 2.85		12.99 16.09	500
	MILLER, E. L., WASHINGTON C. H., O.	1913.										
656	Dahl's Special.	Claimed. Found.	2.00 2.00	6.82	10.00 13.94	13.80	3.00 5.05	1.57	2.00 2.53	2.66	19.75 24.85	656
	MORRIS & COMPANY, CHICAGO, ILL.	1913.										
243	Big Ten—Prepared Manure with Phosphate and Potash.	Claimed. Found.	2.00 2.75	9.38	8.00 10.34	10.24	2.00 1.02	0.32	*2.00 *2.45	3.21	17.98 23.15	243
	MUSKINGUM VALLEY FERTILIZER CO., THE, MARIETTA, O.	1913.										
535	Muskingum Brand—Special Vegetable Grower	Claimed. Found.	1.50 1.65	5.63	9.00 9.82	9.72	1.00 1.08	0.33	6.00 9.08	9.53	20.64 25.21	535

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a Wholly from animal matter.
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ALL RIGHT, BUT SHOW EVIDENCE OF POOR MIXING—Continued.
TABLE I—MIXED FERTILIZER—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Available.		Insoluble.		Percent.	Value.		
					Percent.	Value.	Percent.	Value.				
404	OHIO STANDARD CHEMICAL CO., THE, TOLEDO, O. Standard F.....	1913. Claimed. Found.	1.00 1.55	5.29	8.00 9.27	9.18	1.66	0.51	3.00 3.91	4.11	14.48 19.09	404
661	Standard I..... PITTSBURGH PROVISION & PACKING CO., PITTSBURGH, PA.	Claimed. Found.	2.00 3.85	13.13	8.00 9.59	9.49	1.47	0.46	10.00 6.84	7.18	25.24 30.26	661
605	Pure Bone and Meat..... PORTSMOUTH CHEMICAL CO., PORTSMOUTH, O.	Claimed. Found.	6.00 11.10	37.85	4.47	4.43	a1.28	0.78	8.00 5.75		26.46 43.06	605
603	Truck, Potato and Tobacco.....	1913. Claimed. Found.	3.00 4.35	14.83	8.00 7.67	7.59	0.50 a3.84	2.34	6.00 6.80	7.14	24.61 31.90	603
606	Popular.....	Claimed. Found.	2.00 4.95	16.88	8.00 8.56	8.47	0.50 3.90	1.21	2.00 3.68	3.86	17.00 30.42	606

671	PULVERIZED MANURE CO., THE, CHICAGO, ILL.	1913. Claimed. Found.	3.00	6.00	6.00	6.00	6.00	2.00	18.79
			4.78	6.40	6.34	0.51	0.16	*4.95	29.28
630	RAUH & SONS' FERTILIZER CO., E., INDIANAPOLIS, IND.	1913. Claimed. Found.	2.00	10.00	12.09	1.02	0.32	6.00	23.02
			2.35	8.01	12.21	1.02	0.32	7.59	28.39
449	STADLER RENDERING & FERTILIZER CO., THE, J. L. & H., CLEVELAND, O.	1913. Claimed. Found.	1.50	8.26	8.18	10.93	6.67	3.00	20.27
			2.80	9.55	8.18	10.93	6.67	3.35	27.92
428	SLOVER FERTILIZER CO., THE EDW., CAMDEN, O.	1913. Claimed. Found.	2.00	9.00	11.09	3.00	0.69	2.50	19.29
			2.30	7.84	11.20	2.23	0.69	3.53	23.33
380	SMITH AGRICULTURAL CHEMICAL CO., THE, COLUMBUS, O.	1913. Claimed. Found.	1.00	8.00	10.24	2.71	0.84	7.00	18.08
			1.30	4.43	10.34	2.71	0.84	8.69	24.63
470	SWIFT & COMPANY, CHICAGO, ILL. AND CLEVELAND, O.	1913. Claimed. Found.	1.50	13.00	17.54	5.00	1.59	4.00	25.24
			1.70	5.80	17.72	5.00	1.59	5.82	31.04

* From sulphate.

^a Wholly from animal matter.
^r Wholly from rock.
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ALL RIGHT, BUT SHOW EVIDENCE OF POOR MIXING—Concluded.

TABLE I—MIXED FERTILIZER—Concluded.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Ammonia.		Phosphoric Acid.				Potash.		Total Value.	Record Number.
			Percent.	Value.	Percent.	Available.	Insoluble.	Total Percent.	Percent.	Value.		
232	TENNESSEE CHEMICAL CO., LOUISVILLE, KY., AND NASHVILLE, TENN.	1913. Claimed. Found.	1.00	---	7.00	---	---	---	7.00	---	17.92	232
			1.20	4.09	8.09	8.01	0.75	9.05	8.49	8.91	21.31	
43	THOMAS & SON COMPANY, I. P., PHILADELPHIA, PA.	1913. Claimed. Found.	1.00	---	7.00	---	---	---	4.00	---	14.54	43
			1.15	3.92	8.16	8.08	0.38	8.54	5.74	6.03	18.15	
254	Ohio Grain and Sugar Beet Fertilizer	Claimed. Found.	1.00	---	8.00	---	---	---	2.00	---	13.43	254
			1.90	6.48	8.75	8.66	0.64	9.39	4.65	4.88	20.22	
423	Thomas Triumph Fertilizer	Claimed. Found.	1.00	---	9.00	---	---	---	2.00	---	14.42	423
			2.15	7.33	8.95	8.86	0.64	9.59	4.84	5.08	21.47	
9	Improved Super-Phosphate	1913. Claimed. Found.	1.00	---	8.00	---	---	---	4.00	---	18.00	9
			1.20	4.09	10.07	9.97	1.50	11.89	4.55	4.78	19.40	
	VIRGINIA-CAROLINA CHEMICAL CO., CINCINNATI, O.	1913. Claimed. Found.	1.00	---	8.00	---	---	---	4.00	---	18.00	
			1.20	4.09	10.07	9.97	1.82	11.89	4.55	4.78	19.40	
	V. C. Wheat, Corn and Tobacco Grower	1913. Claimed. Found.	1.00	---	8.00	---	---	---	4.00	---	18.00	
			1.20	4.09	10.07	9.97	1.82	11.89	4.55	4.78	19.40	

101	V. C. Bright Leaf Tobacco and Truck Grower.....	Claimed. Found.	2.00 2.40	8.18	6.00	7.09	1.50	0.57	9.01	*8.00 *8.02	10.51	21.00 26.35	10
28	V. C. Standard Wheat and Corn Grower.....	Claimed. Found.	1.00 1.30	4.43	11.00 12.89	12.76	1.50 1.37	0.42	14.26	3.00 3.67	3.85	17.92 21.46	28
29	V. C. Victor Onion and Potato Special.....	Claimed. Found.	2.00 2.60	8.87	8.00 8.69	8.60	1.50 1.46	0.45	10.16	8.00 *9.00	11.79	25.69 29.71	29
204	V. C. I. X. L. Tobacco Grower.....	Claimed. Found.	3.00 3.50	11.94	8.00 8.50	8.42	1.50 1.28	0.40	9.78	*7.00 *8.01	10.49	27.79 31.25	204
537	V. C. Plow Brand Corn and Tobacco Fertilizer	Claimed. Found.	1.00 1.60	5.46	8.00 9.79	9.69	1.50 1.72	0.53	11.51	*7.00 *8.00	10.48	20.97 26.16	537
WESTERN UNION CHEMICAL CO., CLEVELAND, O.													
338	Tiger Bone.....	Claimed. Found.	3.00 3.95	13.47	11.16	11.06	a7.36	4.49	20.00 18.52			25.23 29.01	338
WUICHERT FERTILIZER CO., THE, DAYTON, O.													
305	"Spot Cash" Fertilizer.....	Claimed. Found.	2.00 1.93	6.58	8.00 10.35	10.25	1.00 1.72	0.53	9.00 12.07	2.00 3.12	3.28	17.15 20.64	305
451	"Golden Harvest" Fertilizer.....	Claimed. Found.	3.00 4.00	13.64	7.24	7.17	a5.68	3.46	15.00 12.92	10.00 12.41	13.03	31.98 37.30	451
YOUNGSTOWN FERTILIZER CO., THE, YOUNGSTOWN, O.													
559	Buckeye State Crop Grower.....	Claimed. Found.	2.00 2.30	7.84	8.00 10.87	10.76	a1.00 2.43	0.75	9.00 13.30	2.00 2.51	2.64	17.45 21.99	559

a Wholly from animal matter. r Wholly from rock.
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LICENSED, BUT NOT ANALYZED.

LIST OF COMMERCIAL FERTILIZERS PROPERLY LICENSED.

And offered for Sale in Ohio during 1913, but Samples of Which were not Found by the Division of Agriculture or its Deputies on the Markets, Hence They Have not Been Analyzed, and their Valuations do not appear in this Report.

MANUFACTURERS' CLAIMS.

Address of Person, Firm or Corporation and Name of Fertilizer.	Ammonia.	Phosphoric Acid.			Potash (When In- cluded.)
		Available.	Insoluble.	Total.	
	Percent.	Percent.	Percent.	Percent.	Percent.
American Agricultural Chemical Co., The, Cincinnati, O.—					
Bowker's Acid Phosphate and Potash.....		12.00	10.50	12.50	4.00
American Agricultural Chemical Co., The, New York, N. Y., and Cleveland, O.—					
Tankage.....	7.00				
Blood.....	12.00				
Crooker's—					
Complete Manure.....	1.00	8.00	0.50	8.50	4.00
Dissolved Phosphate and Potash.....		10.00	0.50	10.50	2.00
Farmer's Union—					
Dissolved Phosphate and Potash.....		10.00	0.50	10.50	2.00
Potato, Tobacco and Truck Manure.....	2.00	8.00	0.50	8.50	6.00
Standard Phosphate.....	2.00	8.00	0.50	8.50	2.00

[illegible]

***From sulphate.**

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Wholly from rock.

a Wholly from animal matter.

W

LIST OF COMMERCIAL FERTILIZERS PROPERLY LICENSED—Continued.

Address of Person, Firm or Corporation and Name of Fertilizer.	Ammonia.	Phosphoric Acid.			Potash (When In- cluded).
		Available.	Insoluble.	Total.	
		Percent.	Percent.	Percent.	
Associated Chemical Co., Hagerstown, Md.—					
Nitrate of Soda.....	19.00				50.00
Muriate of Potash.....					
Bash Fertilizer & Chemical Co., Fort Wayne, Ind.—					
Bashumus	1.00	8.00	1.00	9.00	8.00
Bashumus Ten Two.....		10.00	1.00	11.00	2.00
Bashumus Fourteen Percent.....		14.00	1.00	15.00	
Bashumus Two and a Half, Eight Two.....	2.50	8.00	1.00	9.00	2.00
Bell Fertilizer Co., The Geo. A., Wheelersburg, O.—					
Bone Meal.....	3.00			22.00	
Central Chemical Co., The, Hagerstown, Md.—					
Dominion.....	2.00	11.00			4.00
Valley Queen.....	2.00	8.00			5.00
Potash Triumph.....		12.00			5.00
Atlas Brand.....	1.00	8.00			4.00
Ohio Special.....	1.00	8.00			7.00
Great Southern.....		10.00			5.00

Central Chemical Co., The, (Thomas Fertilizer Works), Hagerstown, Md.—									
C C Valley Mixture.....	2.00	8.00							2.00
C C Farmers' Century Brand.....	1.00	8.00							2.00
C C Ground Bone Meal.....	2.50							27.00	
Central Manufacturing Company, Lockland, O.—									
Equity Clay Land Wheat Special.....	1.00	10.00	1.50					11.50	1.00
Equity Beet Special.....	1.00	8.00	1.00					9.00	4.00
Central Phosphate Company, Mount Pleasant, Tenn.—									
Tennessee Phosphate.....				128.00					
Cincinnati Phosphate Co., The, Cincinnati, O.—									
Alkaline Phosphate.....		10.00	1.00					11.00	2.00
Truck and Tobacco Fertilizer.....	2.00	6.00	1.00					7.00	6.00
High Potash Manure.....	1.00	6.00	1.00					7.00	8.00
Black Soil Fertilizer.....		8.00	1.00					9.00	8.00
Conservation Brand.....	1.00	11.00	1.00					12.00	2.00
Top Dresser.....	4.00	6.00	1.00					7.00	5.00
Conneaut Reduction Co., Conneaut, O.—									
Animal Fertilizer.....	1.50	15.00						15.00	
Darling & Company, Chicago, Ill.—									
Darling's Vegetable and Lawn.....									7.00
Darling's Sulphate of Potash.....	4.00	8.00	2.00					10.00	*48.00
Darling's Muriate of Potash.....									50.00
Darling's Nitrate of Soda.....	18.00								

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 r Wholly from rock.
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LIST OF COMMERCIAL FERTILIZERS PROPERLY LICENSED—Continued.

Address of Person, Firm or Corporation and Name of Fertilizer.	Ammonia. Percent.	Phosphoric Acid.			Potash (When In- cluded).
		Available.	Insoluble.	Total.	
	Percent.	Percent.	Percent.	Percent.	Percent.
Enterprise Guano Company, Baltimore, Md.—					
Superior Acid Phosphate.....	1.00	16.00	1.00	17.00	7.00
Star Brand.....		8.00	1.00		
Farmers' Fertilizer Company, The, Columbus, O.—					
Wheat Grower.....	1.00	12.00			4.00
Wheat, Corn and Oats Special.....	2.00	8.00			2.00
Farmers' Favorite Fertilizer.....	1.00	8.00			4.00
Federal Chemical Company, Louisville, Ky.—					
Daybreak Potash Special.....		10.00			2.00
Daybreak Potash Fertilizer.....		9.00			5.00
Daybreak Standard Phosphate.....		12.00			
Fox Chemical Company, (Branch Federal Chemical Co.), Louisville, Ky.—					
Fox Crop and Tobacco Grower.....	1.00	8.00			4.00
Fox Potash Special.....		10.00			2.00
Fox Corn and Wheat Special.....	0.50	12.00			
Fox Phospho-Potash.....		9.00			5.00
Fox Acid Phosphate.....		14.00			

German Kali Works, Inc., New York, N. Y.—						
Sulphate of Potash.....						*47.00
Kainit.....						12.00
Gleaner Clearing House Association, Detroit, Mich., (Mfg. by Armour Fertilizer Works), Chicago, Ill.—						
Gleaner Ohio Producer.....						4.00
Gleaner Ohio Favorite.....	2.00	10.00	r0.50			4.00
		8.00	0.75			
Groves Company, The, Cincinnati, O.—						
Square Brand Special.....	4.00	8.00	2.00	10.00		6.00
Special Truck Manure.....	2.00	8.00	2.00	10.00		8.00
Pure Raw Bone.....	4.50			22.00		
Hammond Slug Shot Works, Fishkill Landing, N. Y.—						
Hammond's Sword Food.....	2.85	4.50	a1.00	5.50		4.60
Hess & Brother, Inc., S. M., Philadelphia, Pa. and Cleveland, O.—						
Potato and Truck Manure.....	3.00	8.00	1.50	9.50		6.00
Farmers' Special Phosphate.....	1.00	5.00	1.50	6.50		10.00
Special High Grade Acid Phosphate.....		16.00	1.50	17.50		
Independent Packers' Fertilizing Co., The, Columbus, O.—						
Muriate of Potash.....						48.00
Nitrate of Soda.....	18.00					
International Agricultural Corporation, (Buffalo Fertilizer Works), Buffalo, N. Y. and Cincinnati, O.—						
Middle West King.....	1.00	12.00	1.00	13.00		2.00

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LIST OF COMMERCIAL FERTILIZERS PROPERLY LICENSED—Continued.

Address of Person, Firm or Corporation and Name of Fertilizer.	Ammonia.	Phosphoric Acid.			Potash (When In- cluded).
		Available.	Insoluble.	Total.	
	Percent.	Percent.	Percent.	Percent.	Percent.
International Seed Company, Rochester, N. Y.—					
International Grain and Grass Fertilizer	1.50	10.00	1.50	11.50	2.50
International Potato and Truck Manure	1.50	8.00	1.50	9.50	7.00
International Electric Fertilizer	1.00	8.00	1.50	9.50	2.00
International Crop Grower	1.00	7.00	1.50	8.50	1.00
Kankakee Fertilizer Co., The, Indianapolis, Ind.—					
Easy Drill 1-8-2	1.00	8.00			2.00
Easy Drill 2-8-2	2.00	8.00			2.00
Easy Drill 1-8-7	1.00	8.00			7.00
Easy Drill 2-8-4	2.00	8.00			4.00
Martin & Company, D. B., Philadelphia, Pa.—					
Martin's Prize Potato	2.00	8.00	2.00	10.00	10.00
Martin's Corn and Cereal Special	2.00	8.00	2.00	10.00	2.00
Martin's Special Potato Manure	1.00	8.00	2.00	10.00	5.00
Martin's Potash and Soluble Phosphate No. 3		12.00	1.00	13.00	5.00
Martin's Pure Ground Bone	2.00			22.90	
Martin's Pure Animal Bone and Potash	2.00			16.00	2.50
Martin's Acid Phosphate		14.00	1.00	15.00	
Miller, E. L., Washington C. H., Ohio—					
Corn and Wheat Grower	1.00	9.00	1.00	10.00	2.00

Ohio Standard Chemical Company, The, Toledo, O.—									
Standard A.....	2.00	14.00							2.00
Standard G.....		8.00							12.00
Kainit.....									
Packers' Fertilizer Co., The, Cincinnati, O.—									
Bone Meal.....	3.00							20.00	
Quality Brand.....	1.00	11.00		1.00				12.00	2.00
Grass and Clover Grower.....	4.00	6.00		1.00				7.00	5.00
Pan American Fertilizer Company, New York, N. Y. and Columbus, O.—									
Pan American Orchard Fruit Special.....	2.00	8.00		1.00				9.00	10.00
Pan American Standard.....	2.00	8.00		1.00				9.00	2.00
Pan American Cereal.....	1.00	8.00		1.00				9.00	2.00
Pioneer Fertilizer Company, Inc., Chicago, Ill. and Cleveland, O.—									
Pioneer Potato and Vegetable Grower.....	2.00	8.00		a1.00				9.00	*7.00
Pioneer Truck and Corn Grower.....	1.00	8.00		a0.50				8.50	4.00
Pioneer 3-8-5 Fertilizer.....	3.00	8.00		a1.00				9.00	5.00
Pioneer High Grade Acid Phosphate.....		14.00							
Pioneer 10-8 Fertilizer.....		10.00							8.00
Pioneer Bone Meal.....	3.00							24.00	
Pioneer Chicago Bone Meal.....	2.00							20.00	
Pioneer 2-8-10 Fertilizer.....	2.00	8.00		a1.00				9.00	10.00
Pioneer 24-27 Bone Meal.....	2.50							27.00	
Pittsburgh Provision & Packing Co., Pittsburgh, Pa.—									
Special Potato Fertilizer.....	2.00	9.00		a1.00				10.00	7.00
Corn and Potato Fertilizer.....	1.75	9.00		a2.00				11.00	3.00
Wheat and Grass Fertilizer.....	1.75	9.00		a2.00				11.00	
Phosphate and Potash.....		9.00		r1.00				10.00	2.00
Acid Phosphate.....		11.00		r2.00				13.00	

*From sulphate.

r Wholly from rock.

a Wholly from animal matter.

NOTE—Where the insoluble is from mixed animal and mine al matter no letter is prefixed.

LIST OF COMMERCIAL FERTILIZERS PROPERLY LICENSED—Continued.

Address of Person, Firm or Corporation and Name of Fertilizer.	Ammonia.	Phosphoric Acid.			Potash (When In- cluded).
		Available.	Insoluble.	Total.	
	Percent.	Percent.	Percent.	Percent.	Percent.
Queen City Fertilizer Co., The, Cincinnati, O.—					
Phosphate and Potash.....	2.00	10.00	r1.00	11.00	2.00
Lion Truck Grower.....	1.00	8.00	1.00	7.00	6.00
Extra Sugar Beet Grower.....	3.00	8.00	1.00	9.00	5.00
Lion Bone Meal.....				20.00	
Rauh & Sons Fertilizer Company, E., Indianapolis, Ind.—					
Half and Half.....	1.50	8.00	10.00	18.00	
Ruhm Phosphate Mining Co., Mt. Pleasant, Tenn.—					
Ground Phosphate Rock.....			r28.00		
Standard Guano Company, Baltimore, Md.—					
Standard Ideal Guano.....	2.00	9.00	0.50	9.50	4.00
Standard X X Potash Mixture.....		12.00	r1.00	13.00	5.00
Standard Extra High Grade Phosphate.....		16.00	r1.00	17.00	
Smith Agricultural Chemical Co., The, Columbus, O.—					
Sulphate of Potash.....	2.00	8.00			*48.00
Abbott & Martin's Potato and Tobacco Special.....	2.00	8.00			4.00
Buckeye Electric Phosphate.....		8.00			4.00

Swift & Company, Chicago, Ill. and Cleveland, O.—						
Swift's Diamond "A" Fertilizer.....	3.00	8.00	9.00	9.00	3.00	
Swift's Pure Dissolved Animal Bone.....	2.00	16.00	21.00	21.00	3.00	
Sulphate of Potash.....						*48.00
Teare & Son, Wm. H., Cleveland, O.—						
Hardwood Ashes.....					2.50	
Tennessee Chemical Company, Louisville, Ky. and Nashville, Tenn.—						
Ox High Grade Dissolved Phosphate.....		14.00		r0.50		2.00
Ox Potash Mixture.....		10.00		r0.50		5.00
Ox Ten Five Formula.....		10.00		r0.50		2.00
Ox Corn and Wheat Grower.....	1.00	8.00		0.75		4.00
Ox Grain Grower.....	1.00	7.00		0.75		
Ox Bone Meal.....	3.00		24.00			
Thomas & Son Co., I. P., Philadelphia, Pa.—						
Thomas' Wheat and Corn Fertilizer.....	1.00	9.00			3.00	
Raw and Acidulated Bone.....	2.00		18.00			
Tuscarora Fertilizer Company, Chicago, Ill., (Mfg. by Armour Fertilizer Co.), Chicago, Ill.—						
Big Four.....	2.00	7.00		0.75	4.00	
Raw Bone Meal.....	4.50		22.00			
United Fertilizer Company, Chicago, Ill.—						
Evergreen Brand Flower and Lawn Fertilizer.....	11.18	14.20		r1.70	15.30	

*From sulphate.

a Wholly from animal matter.
 r Wholly from rock.
 NOTE—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

LIST OF COMMERCIAL FERTILIZERS PROPERLY LICENSED—Concluded.

Address of Person, Firm or Corporation and Name of Fertilizer.	Ammonia.	Phosphoric Acid.			Potash (When In- cluded).
		Available.	Insoluble.	Total.	
	Percent.	Percent.	Percent.	Percent.	Percent.
Virginia-Carolina Chemical Company, Cincinnati, O.—					
V. C. Sulphate of Potash.....	2.25			26.00	*48.00
V. C. Bone Meal and Potash.....	3.00			22.00	3.00
V. C. Pure Bone Meal.....					
V. C. Ground Phosphate Rock.....			27.00		
Welch Fertilizer Company, The, Columbus, O.—	2.00	8.00			2.00
Progress Standard Corn and Wheat.....					
Western Fertilizer Works, Indianapolis, Ind.—					
Spring Special.....	1.00	8.00		8.00	3.00
Wheat and Clover Grower.....	1.50	8.00	1.00	9.00	1.50
Western Union Chemical Company, Cleveland, O.—		10.00	0.50	10.50	2.00
Grain and Grass Grower.....					
Wood & Company, Cleveland, O.—					
Wood's Pure Raw Bone Lawn Fertilizer.....	4.50			22.00	

Youngtown Fertilizer Co., Youngstown, O.—

Prize Potato and Vegetable Grower.....	2.00	7.00	a1.00	8.00	10.00
--	------	------	-------	------	-------

a Wholly from animal matter. r Wholly from rock. *From sulphate.
 NOTE—Where the insoluble is from mixed animal and mineral matter no letter is prefixed.

TABULATED ANALYSES OF AGRICULTURAL LIME.

Samples Gathered During 1913.

All Analyses Made by Ohio State University Chemist, Columbus, Ohio. Samples Retested and Results Confirmed.

LIME ROCK OR LIMESTONE.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Guaranteed Analyses.						Record Number.
			Carbo- nate of Lime.	Carbo- nate of Mag- nesium.	Fineness.				
					1 — 10	1 — 50	1 — 100		
14	BEIGH & SON, HENRY, REPUBLIC, OHIO. "Cooper" -----	1913. Claimed. Found.	95.00 55.60	----- 41.38	100.00 99.00	90.00 77.50	50.00 74.00	14	
13	BESSEMER LIMESTONE CO., YOUNGSTOWN, OHIO. Bessemer Agricultural Ground Limestone. -----	1913. Claimed. Found.	80.00 85.06	1.89 1.01	100.00 100.00	84.00 84.00	70.00 78.90	13	
15	BLUE LIMESTONE CO., LYNCHBURG, OHIO. "Blue" -----	1913. Claimed. Found.	93.80 92.68	0.46 1.14	99.00 99.00	67.00 59.00	46.00 53.50	15	
16	CARBON LIMESTONE CO., THE, YOUNGSTOWN, OHIO. "Carbon Limestone" -----	1913. Claimed. Found.	85.00 83.65	0.75 1.10	86.00 97.00	45.00 54.00	29.00 50.50	16	

23	HASEROT CANNERIES CO., THE, CLEVELAND, OHIO. Horse Head Carbonate of Lime.....	1913. Claimed. Found.	93.87 92.63	6.52 5.23	82.00 84.00	20.00 25.00	15.00 20.00	23
9	INTERNATIONAL AGRICULTURAL CORPORATION, CINCINNATI, OHIO. Agricultural Lime.....	1913. Claimed. Found.	85.00 84.56	5.50 8.27	80.00 83.50	30.00 39.50	20.00 36.50	9
10	KELLY ISLAND LIME & TRANSPORT CO., THE, CLEVELAND, OHIO. Tiger Brand Agricultural Limestone.....	1913. Claimed. Found.	80.00 77.24	11.00 18.77	100.00 100.00	50.00 59.50	35.00 56.50	10
11	RUCKER, G. W., GREENFIELD, OHIO. Pulverized Limestone.....	1913. Claimed. Found.	55.00 52.66	43.44 40.71	98.40 92.00	72.00 47.00	55.00 43.00	11
7	SMITH AGRICULTURAL CHEMICAL CO., THE, COLUMBUS, OHIO. Ground Limestone.....	1913. Claimed. Found.	85.00 85.50	5.50 7.55	80.00 83.50	30.00 32.50	20.00 29.00	7

No market valuation given brands of Agricultural Lime as shown for the different brands of Fertilizers appearing on other pages of this Report, for the reason that for agricultural purposes it is assumed that calcium and magnesium have the same value in correcting acidity. Therefore, in determining values we will use the sum of the total calcium plus the minimum magnesium claimed as against the sum of the total calcium and magnesium found.

In some cases results of findings are lower than claimed, but this is offset by higher magnesium findings and vice versa. In such cases no penalties imposed.

BURNT OR QUICK LIME.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Guaranteed Analyses.				Record Number.
		Claimed and Found.	Calcium Oxide.	Magnesium Oxide Minimum.	Magnesium Oxide Maximum.	
	KELLY ISLAND LIME & TRANSPORT COMPANY, THE, CLEVELAND, OHIO.	1913.				
18	Tiger Brand Quick Agricultural Lime..	Claimed. Found.	64.00 53.23	18.00 -----	25.00 33.12	18
	OHIO FARMERS' LIME CO., CLEVELAND, OHIO.	1913.				
24	Ohio Farmers' Lime.....	Claimed. Found.	45.00 47.10	1.00 -----	4.00 4.29	24
	OHIO & WESTERN LIME CO., THE, HUNTINGTON, IND.	1913.				
2	Agricultural Lime.....	Claimed. Found.	54.46 53.42	44.35 -----	----- 36.23	2
	PLANT FOOD CO., THE, CLEVELAND, OHIO.	1913.				
4	Plant Lime.....	Claimed. Found.	45.00 44.13	4.00 -----	4.00 3.35	4

HYDRATED LIME.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Guaranteed Analyses.				Record Number.
		Claimed and Found.	Calcium Oxide.	Magnesium Oxide Minimum.	Magnesium Oxide Maximum.	
6	AGRICULTURAL & COMMERCIAL LIME COMPANY, THE, CANTON, OHIO.	1913.				6
	Farm & Garden.....	Claimed. 57.50 Found. 52.79	1.30	2.50	2.71	
25	CANTON GREY LIME COMPANY, THE, CANTON, OHIO.	1913.				25
	Pure Grey Lime.....	Claimed. 64.60 Found. 62.56	1.00	2.00	1.20	
17	CANTON LIME & FERTILIZER CO., THE, CANTON, OHIO.	1913.				17
	Clover Leaf.....	Claimed. 60.00 Found. 58.32	1.00	2.00	1.26	
22	GERMANO LIME COMPANY, GERMANO, OHIO.	1913.				22
	Hydrated Lime.....	Claimed. 54.00 Found. 54.50	0.50	1.00	0.75	
1	KELLY ISLAND LIME & TRANSPORT CO., THE, CLEVELAND, OHIO.	1913.				1
	Tiger Brand Hydrated Agricultural Lime.....	Claimed. 54.00 Found. 45.05	16.00	20.00	31.27	
19	LISBON LIME COMPANY, THE, LISBON, OHIO.	1913.				19
	Gray Hydrated Agricultural Lime.....	Claimed. 21.40 Found. 50.62		0.25	2.09	
20	MIDDLEBRANCH LIME CO., CANTON, OHIO.	1913.				20
	"Pure Grey Lime".....	Claimed. 62.00 Found. 62.20	1.00	2.00	1.19	
3	OHIO WESTERN LIME CO., HUNTINGTON, IND.	1913.				3
	Hydrated Agricultural Lime.....	Claimed. 46.20 Found. 48.45	31.03		33.52	

HYDRATED LIME—Concluded.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Guaranteed Analyses.				Record Number.
		Claimed and Found.	Calcium Oxide.	Magnesium Oxide Minimum.	Magnesium Oxide Maximum.	
	OWENS & SON, JOHN D., OWENS, OHIO.	1913.				
12	Clover Leaf	Claimed. Found.	55.00 55.33	12.00 -----	14.50 14.81	12
	SCIOTO LIME & STONE CO., THE, DELAWARE, OHIO.	1913.				
5	"Clover Grower"	Claimed. Found.	45.00 56.79	5.00 -----	12.00 18.13	5
	SNYDER, A. M., NORTH INDUSTRY, OHIO.	1913.				
21	Hydrated Fertilizer Lime	Claimed. Found.	58.34 48.49	1.42 -----	2.00 1.19	21
	WOODVILLE LIME & CEMENT CO., THE, TOLEDO, OHIO.	1913.				
8	"Agricultural Lime"	Claimed. Found.	40.00 46.17	25.00 -----	35.00 32.32	8

DANGER! STOP! LOOK! LISTEN!

This Brand Shows a Deficiency in Manufacturers' Claims and Therefore Placed in the **CONTAGIOUS DISEASE COLUMN.**

All Samples Drawn in Accordance With the Law and Analyzed by Competent Chemist.

BURNT OR QUICK LIME.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Guaranteed Analyses.				Record Number.
		Claimed and Found.	Calcium Oxide.	Magnesium Oxide Minimum.	Magnesium Oxide Maximum.	
2	OHIO AND WESTERN LIME CO., THE, HUNTINGTON, IND.	1913.				2
	Agricultural Lime.....	Claimed. Found.	54.46 53.42	44.35 -----	----- 36.23	

CAUTION! CAUTION! CAUTION!

Some of These Brands Show Only a Slight Deficiency in Manufacturers' Claims, and Therefore Do Not Belong in the
CONTAGIOUS DISEASE COLUMN.

All Samples Drawn in Accordance With Law and Analyzed by Competent Chemist.

LIME ROCK OR LIMESTONE.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Guaranteed Analyses.						Record Number.
			Carbo- nate of Lime.	Carbo- nate of Mag- nesium.	Fineness.				
					1 — 10	1 — 50	1 — 100		
15	BLUE LIMESTONE COMPANY, LYNCHBURG, OHIO. "Blue" -----	1913. Claimed. Found.	93.80 92.68	0.46 1.14	99.00 99.00	67.00 59.00	46.00 53.50	15	
16	CARBON LIMESTONE CO., THE, YOUNGSTOWN, OHIO. "Carbon Limestone" -----	1913. Claimed. Found.	85.00 83.65	0.75 1.10	86.00 97.00	45.00 54.00	29.00 50.50	16	
23	HASEROT CANNERIES CO., THE, CLEVELAND, OHIO. Horse Head Carbonate of Lime -----	1913. Claimed. Found.	93.87 92.63	6.52 5.23	82.00 84.00	20.00 25.00	15.00 20.00	23	
11	BUCKER, G. W., GREENFIELD, OHIO. Pulverized Limestone -----	1913. Claimed. Found.	55.00 52.66	43.44 40.71	98.40 92.00	72.00 47.00	55.00 43.00	11	

CAUTION! CAUTION! CAUTION!

Some of These Brands Show Only a Slight Deficiency in Manufacturers' Claims and Therefore Do Not Belong in the **CONTAGIOUS DISEASE COLUMN**.

All Samples Drawn in Accordance With the Law and Analyzed by Competent Chemist.

BURNT AND HYDRATED LIME.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Guaranteed Analyses.				Record Number.
		Claimed and Found.	Calcium Oxide.	Magnesium Oxide Minimum.	Magnesium Oxide Maximum.	
	AGRICULTURAL & COMMERCIAL LIME COMPANY, THE, CANTON, OHIO.	1913.				
6	Farm & Garden.....	Claimed. 57.50 Found. 52.79	1.30	2.50	2.71	6
	CANTON GREY LIME COMPANY, THE, CANTON, OHIO.	1913.				
25	Pure Grey Lime.....	Claimed. 64.60 Found. 62.56	1.00	2.00	1.20	25
	CANTON LIME & FERTILIZER CO., THE, CANTON, OHIO.	1913.				
17	Clover Leaf.....	Claimed. 60.00 Found. 58.32	1.00	2.00	1.26	17
	KELLY ISLAND LIME & TRANSPORT CO., THE, CLEVELAND, OHIO.	1913.				
18	Tiger Brand Quick Agricultural Lime..	Claimed. 64.00 Found. 53.23	18.00	25.00	33.12	18
	PLANT FOOD CO., THE, CLEVELAND, OHIO.	1913.				
4	Plant Lime.....	Claimed. 45.00 Found. 44.13	4.00	4.00	3.35	4
	SNYDER, A. M., NORTH INDUSTRY, OHIO.	1913.				
21	Hydrated Fertilizer Lime.....	Claimed. 58.34 Found. 48.49	1.42	2.00	1.19	21

LICENSED, BUT NOT ANALYZED.

LIST OF AGRICULTURAL LIME BRANDS PROPERLY LICENSED.

And offered for Sale in Ohio during 1913, but Samples of Which were not Found by the Division of Agriculture or its Deputies on the Markets, Hence They Have not been Analyzed, and their Findings do not appear in this Report.

MANUFACTURERS' CLAIMS.

	Calcium Oxide Minimum.	Magnesium Ox- ide Minimum.	Magnesium Ox- ide Maximum.	Carbonate of Lime Minimum.	Carbonate of Magnesium Minimum.	Fineness.		
						1 — 10	1 — 50	1 — 100
BOLITHO, J. W. & W. E., JEWETT, OHIO.	1913.							
Bolitho's Air Slacked Lime.....	23.00	2.76	4.00					
CRAWFORD, GEORGE S., GRAYSVILLE, OHIO.	1913.							
Agricultural Lime.....				84.00	4.00	90	50	18
NATIONAL MORTAR & SUPPLY CO., PITTSBURGH, PA.	1913.							
"Banner Lime".....	56.00	36.00						
WILLARD & COMPANY, E. B., IRONTON, OHIO.	1913.							
"Lawrence" Agricultural Lime.....				93.00	0.80	80	45	20

BAKED ICE CREAM.

For use in 1914.

VALUATIONS OF COMMERCIAL FERTILIZERS.

The valuations attached to the fertilizer analyses as published in the monthly bulletins issued by the Division of Agriculture are intended to represent the average cost of the phosphoric acid, potash and ammonia they contain, delivered at Columbus in the raw materials furnishing them plus an allowance of 25 per cent. to cover the mixing of the material and the profit of the manufacturer. Sacking or bagging is not included. This item will mean an additional cost of from \$1.50 to \$1.80 a ton.

They are based on the average wholesale price for the previous year, and in each bulletin is published a statement of the ruling market price at the time as compared with the previous year's price. In the annual report the results published in the various bulletins are collected together and published as a whole.

The method of computation is given in this report on pages 94 and 95. In the Bulletins for 1913 the valuations are based upon the average cost at Columbus for the year 1912 and are as follows:

	Cost of raw material per unit.	With 25% added cost in mixed goods.	Value per pound. Cents.
Ammonia -----	\$2.83	\$3.54	17.7
Available phosphoric acid-----	0.76	0.95	4.7+
Actual potash in sulphate-----	1.05	1.31	6.5+
Actual potash in muriate-----	0.84	1.05	5.2+
Phosphoric acid in fine bone-----	0.63	0.79	3.9+
Phosphoric acid in medium bone-----	0.47	0.59	2.9+
Insoluble phosphoric acid in animal and mineral mixture	0.23	0.29	1.4+

TABULATED VALUATIONS OF COMMERCIAL FERTILIZERS FOR THE YEAR ENDING DECEMBER 31, 1913.

(For use in the Bulletin for 1914.)

NOTE:—"Unit" is a trade expression. "Unit" equals twenty pounds of commercial fertilizer ingredients. "Unit" means one per centum of a ton. For example: The market quotation of ammonia is \$3.54 per unit. \$3.54 divided by 20 equals 17.7 cents per pound.

In Table No. 1, which follows, the valuation of mixed fertilizers including acid rock and potash, also bone treated with acid or mixed with

rock, or in some other way altered from pure bone, are given, based on the following prices per unit and per pound for the ingredients named.

Pure untreated bone in Table 2. Treated or altered bone in Table 1.

TABLE No. 1—MIXED OR TREATED FERTILIZERS.

Ammonia, \$3.54 per unit, or 17.7 cents per pound.

Available phosphoric acid, \$0.95 per unit or 4.7 cents per pound.

Available phosphoric acid in straight acidulated goods, (no allowance for mixing), \$0.76 per unit or 3.8 cents per pound.

Insoluble phosphoric acid, wholly mineral, no value.

Insoluble phosphoric acid, in mixed animal and mineral, 29 cents per unit or 1.4 cents per pound.

Insoluble phosphoric acid in bone, 59 cents per unit or 2.9 cents per pound.

NOTE:—Where manufacturers only claim total phosphoric acid in treated bones: the calculation of the value from their claims is made as in case of Bones in Table No. 2.

Potash (actual) from sulphate or carbonate, \$1.31 per unit or 6.5 cents per pound.

Potash (actual) from muriate, \$1.05 per unit or 5.2 cents per pound.

In Table No. 2 are given values of untreated bones, which are computed from the following prices:

TABLE No. 2—BONES.

Ammonia, \$3.54 per unit or 17.7 cents per pound.

Phosphoric acid in "fine" bone, 79 cents per unit or 3.9 cents per pound.

Phosphoric acid in "medium" bone, 59 cents per unit or 2.9 cents per pound.

Total phosphoric acid in bone where "fineness" not given, 73 cents per unit or 3.6 cents per pound.

Potash, if found present, valued same as in Table No. 1.

In Table No. 3 are given values of the unmixed fertilizing materials, viz., potash salts, nitrate of soda, sulphate of ammonia, dried blood, tankage, raw rock, bone black, ashes, etc.

These materials are used in the manufacture of mixed fertilizers. The values given are calculated from the average price for these materials, f. o. b. Columbus, and are as follows for the fertilizing ingredients:

TABLE No. 3—FERTILIZING MATERIALS—UNMIXED.

Ammonia, \$2.83 per unit or 14.2 cents per pound.

Total phosphoric acid in bone (untreated) 58 cents per unit or 2.9 cents per pound.

Potash (actual) from sulphate, \$1.05 per unit or 5.2 cents per pound.

Potash (actual) from muriate, 84 cents per unit or 4.2 cents per pound.

Total phosphoric acid in raw rock or untreated bone black, 26 cents per unit or 1.3 cents per pound.

When these substances are purchased in mixed fertilizers the cost price for the fertilizing ingredients is 25 per cent. greater, not including sacking, which will amount to about \$1.60 a ton.

OHIO FERTILIZER LAW.

Inspection of Fertilizers.

SECTION 1. That sections 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1147, 1148, 1149, 1151, 1152, 1153 and 1155 of the General Code be amended so as to read as follows:

Sec. 1139. Each person, firm or corporation who manufactures, sells or offers for sale in the state a commercial fertilizer, which means any substance for fertilizing or manurial purposes, except barnyard manure, marl, lime and plaster, shall affix to each package in a conspicuous place on the outside thereof, a plainly printed certificate which shall state the number of net pounds contained therein, the name, brand or trade mark, under which it is sold, or offered for sale, the name of the manufacturer, with his or its postoffice address. Such certificate shall contain also a chemical analysis which shall state the minimum percentages guaranteed of ammonia, of potash soluble in water, of phosphoric acid in available form, comprising the soluble and reverted, and of insoluble phosphoric acid, the sources of ammonia and the sources of insoluble phosphoric acid. In bone, tankage and basic slag unmixed with other material the phosphoric acid shall be claimed only as total phosphoric acid. In untreated phosphoric rock and other mineral phosphoric materials, the phosphoric acid shall be claimed only as insoluble phosphoric acid. When any commercial fertilizer, sold or offered for sale in this state, contains muck, peat, pulverized leather, hair, ground horn or wool waste or other materials in which the ammonia is largely unavailable, such certificate shall state explicitly such fact.

Sec. 1140. No other form of analysis, and no duplication of terms or the equivalent thereof in other terms shall be used except that the nitrogen equivalent to the ammonia may be stated. No percentages higher than the lowest actually guaranteed shall be affixed to a package, printed upon a bag or used in printed matter descriptive of such fertilizer. No false or misleading name, brand or trade mark shall be used in designating a commercial fertilizer, or a name, brand or trade mark indicating that the essential ingredients thereof were obtained from bone or animal substance, if the source thereof was wholly or in part a mineral substance. Any material in which the organic matter has been destroyed by heat shall be deemed mineral substance.

Sec. 1141. Before selling or offering for sale any commercial fertilizer within this state, each person, firm or corporation shall file with the Agricultural Commission of Ohio, a certified copy of such certificate.

Sec. 1142. No commercial fertilizer shall be sold or offered for sale if the percentage of any ingredient, element or constituent is less than the minimum percentage claimed or guaranteed; provided that there may be a deficiency of six per cent. of the amount claimed in any one ingredient before evidence of fraudulent intent shall be presumed; if there is a corresponding excess in the other ingredients claimed on the basis of the following equivalents in value: One part of ammonia shall be deemed equivalent to three parts of available phosphoric acid; one part of ammonia shall be deemed equivalent to three parts of potash; one part of ammonia shall be deemed equivalent to six parts of insoluble phosphoric acid from animal matter; one part of ammonia shall be deemed equivalent to twelve parts of insoluble phosphoric acid from mixed animal and mineral matter; in bone or tankage one part ammonia shall be deemed equivalent to five parts of total phosphoric acid.

Sec. 1143. Before selling or offering for sale within this state a commercial fertilizer, a person, firm or corporation shall pay each year, a license fee to the Agricultural Commission of Ohio, for the sale of each brand thereof, thirty dollars. Upon application and payment of such fee said commission shall issue a license for the current year. All licenses shall expire on the 31st day of December of each year. The payment of such license fee by a person, firm or corporation, shall exempt an agent thereof from the requirements of this section.

Sec. 1144. Each year at least one analysis shall be made of each brand of commercial fertilizer sold within this state. All such analysis shall be made under the direction of the Agricultural Commission of Ohio, and the expenses thereof paid by said commission, from a fund arising from the payment of license fees provided for in the preceding section.

Sec. 1145. For the purposes of analysis and comparison with the certificate deposited with it and with the certificate on such package, the Agricultural Commission of Ohio, or a person appointed by it, shall take a quantity of not less than one pound, and not exceeding two pounds, from packages of commercial fertilizer exposed or offered for sale within this state, or in the possession of a dealer, consumer or transportation company. Such sample shall be taken from at least five per cent. of the sacks or other packages comprising the whole lot sampled. If there are less than one hundred sacks in the lot sampled, samples shall be taken from not less than five sacks, if there are less than five sacks in the lot sampled, samples shall be taken from not less than three sacks.

Sec. 1147. Any person not a dealer in, or agent for a fertilizer who purchases a commercial fertilizer in this state for his own use, and not for sale, may have an analysis thereof made under the direction of the Agricultural Commission of Ohio.

Sec. 1148. A sample for such analysis shall be taken by the pur-

chaser in the presence of the person, firm or agent selling the fertilizer, from at least ten per cent. of the sacks or other packages comprising the whole lot purchased. If there are less than one hundred sacks in the lot purchased, samples shall be taken from not less than ten sacks; and if there are less than ten sacks in the lot purchased samples shall be taken from each sack, and all such samples shall be taken in the manner required by the Agricultural Commission of Ohio. If the person, firm or agent refuses to witness the taking thereof, the samples may be taken in the manner described in the presence of two disinterested witnesses, who shall certify to the manner of taking such samples.

Sec. 1149. The samples shall be taken at the time and place of delivery to the purchaser, from dry, undamaged goods, and from packages or sacks not theretofore opened, broken or resacked, and thoroughly mixed. At least two pounds thereof must be put into two cans or jars, marked to identify it and to show by whom sent, and shall be securely sealed and forwarded by express, all charges prepaid, to the Agricultural Commission of Ohio (Division of Agriculture), Columbus, Ohio, together with the printed certificate from one of the bags or packages so sampled, with the name and address of the person or firm from whom the fertilizer was purchased and the amount purchased, accompanied by a fee of one dollar for each element for which analysis is asked.

Sec. 1150. The purchaser shall also send with the sample a certificate signed by himself and two disinterested witnesses, that the sender has purchased the fertilizer for his own use and not for sale, and that the sample was taken in the manner prescribed in the two preceding sections.

Sec. 1151. If a sample shall have been submitted for analysis without complying with the requirements of the preceding sections, the Agricultural Commission of Ohio, in its discretion may accept such sample for analysis if it believes it is a fair sample of the fertilizer delivered to the purchaser.

Sec. 1152. The Agricultural Commission of Ohio and such assistants, agents, experts and chemists, as it may duly authorize for the purpose, shall have the power to open any package or vessel containing or supposed to contain any commercial fertilizer, and take therefrom samples for analysis upon tendering the value of said samples.

Sec. 1153. Whoever sells, offers for sale, or keeps for the purpose of selling within this state, a commercial fertilizer without complying with the provisions of this chapter relating to commercial fertilizers, or permits an analysis to be attached to any package thereof, stating that it contains a larger percentage of any constituent thereof, than it does in fact contain, except as provided in section 1142, shall be fined not less than fifty dollars nor more than two hundred dollars for a first offense, and for a subsequent offense, not less than two hundred dollars nor more

than five hundred dollars, or imprisoned not more than six months or both. The possession of commercial fertilizers, except by a person who has the same for his private use, without complying with the provisions of this chapter relating to commercial fertilizers, in any building, room, railroad car, store, storeroom, warehouse or other place within this state, shall be prima facie evidence of keeping of the same for the purpose of selling. In all prosecutions under this act, a justice of the peace, police judge or mayor, shall have final jurisdiction as in cases of violation of laws of the adulteration of food and drink and dairy products. The Agricultural Commission of Ohio shall rest its prosecutions under this act, on samples drawn, as provided in section 1145.

Sec. 1154. The attorney general, or any prosecuting attorney, shall prosecute all violations of this chapter.

Sec. 1155. The Agricultural Commission of Ohio shall make an annual report of and may publish from time to time, analysis made on samples drawn as provided in section 1145 and the analysis guaranteed by the manufacturer. Such report shall contain a statement of moneys received and expended from license fees collected for the sale of commercial fertilizers. Any unexpended balance shall be credited to the agricultural fund. Provided, however, that no provisions of this act shall apply to any fertilizer purchased from the manufacturer by a retail dealer prior to November 1, 1911, provided that the amount of such fertilizer in the hands of such retail dealer does not exceed five tons.

SECTION 2. That said original sections 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1151, 1152, 1153 and 1155 be and the same are hereby repealed and this act shall take effect and be in force from and after the first of December, 1911.

STOP — LOOK — LISTEN.

A \$30 LICENSE FEE must be paid for each brand of commercial fertilizer sold in Ohio.

ONLY THE MINIMUM percentages guaranteed of ammonia, of potash soluble in water, of phosphoric acid available and phosphoric acid insoluble, shall be printed on packages, bags, or tags attached thereto.

THE OHIO FERTILIZER LAW requires that the printed certificate or tags on sacks must state the sources of Ammonia, when claimed.

IF AMMONIA is claimed, such certificate should state materials from which obtained.

If fertilizer contains any muck, peat, pulverized leather, hair, ground horn, wool waste, or any other materials in which the Ammonia is largely unavailable, such facts shall be explicitly stated.

IF INSOLUBLE PHOSPHORIC ACID is claimed, state source, whether from animal or mineral matter, or both.

OHIO AGRICULTURAL LIME LAW.

To Authorize the Licensing and Inspection of Agricultural Lime.

SECTION 1. Whoever manufactures, sells or offers for sale, exposes for sale or distribution in the state any agricultural lime to be used as a fertilizer or land improver, shall furnish with each carload lot or quantity in bulk thereof or shall affix to each package or bulk of agricultural lime, in a conspicuous place on the outside thereof, a plainly printed statement clearly and truly certifying the number of net pounds in such car or quantity in bulk or in each package sold or offered for sale, the name of the manufacturer or shipper, the place of manufacture, the place of business, the source and state of combination, and a chemical analysis stating the minimum percentage of calcium oxide, the minimum and maximum percentage of magnesium oxide, the minimum percentage of carbonate of lime, the minimum percentage of carbonate of magnesium, the per centum of the total material that will pass through a one hundred mesh sieve to the linear inch, the per centum of the total material that will pass through a fifty mesh sieve to the linear inch and the per centum of the total material that will pass through a ten mesh sieve to the linear inch, provided, that statement as to the degree of fineness shall apply to marl and ground lime rock only.

In case of agricultural lime, sold at factory or shipped in bulk, or delivered in wagon load, it shall be accompanied by at least one such statement as above required, affixed in a conspicuous place on the carrier of such agricultural lime or adjacent thereto.

No other form of analysis, and no duplication of terms or the equivalent thereof in other terms shall be used, and no percentage higher than the lowest actually guaranteed shall be applied to a package or printed upon a bag or used in printed matter descriptive of such material, and no false or misleading name, brand or trade mark, shall be used in designating it.

SECTION 2. The term agricultural lime, as here used, shall include all quick lime, both lump and ground, ground lime stone, ground or pulverized oyster shells, sulphate of lime or plaster, hydrated lime, gas lime, marl, and all other similar products.

SECTION 3. Before any agricultural lime is sold, offered or exposed for sale in the state, the person, firm, or corporation thereof shall pay each year, a license fee to the Agricultural Commission of Ohio of thirty

dollars for each brand or kind of agricultural lime sold or offered for sale, and shall receive from said Agricultural Commission of Ohio a license certificate to sell such brand or kind of agricultural lime until the first day of January next following; provided that when any person, firm or corporation, shall have paid the license fee as herein provided, it shall not be necessary for any agent or representative, or any persons selling the product so tested to pay such fee.

SECTION 4. Any person, firm or corporation, who shall sell, offer or expose for sale, or for distribution in this state any agricultural lime without complying with the preceding sections shall on conviction be fined not more than one hundred dollars for the first offense and not more than two hundred dollars for each subsequent offense.

SECTION 5. The Agricultural Commission of Ohio shall annually analyze, or cause to be analyzed, at least one sample of every kind of agricultural lime sold or offered for sale within the state under the provisions of this chapter if found upon the markets of the state. The said Agricultural Commission of Ohio is hereby authorized and directed, either in person or by deputies, to take a sample for said analysis from any lot or package of agricultural lime which may be in the possession of any person, firm or corporation, or agent thereof, or while in transit in the state. The result of the analysis of the sample, or samples, so procured, together with such additional information as circumstances advise or suggest, shall be published in reports or bulletins issued from time to time, and also be a basis upon which prosecution may be brought.

Any person who is not a dealer in, or agent, for some lime company, can forward sample of agricultural lime for analysis to the Agricultural Commission of Ohio (Division of Agriculture), at Columbus, express charges prepaid, by putting at least two pounds thereof into two cans, or jars, marked to identify it and show by whom sent, with the name and address of the person or firm from whom the agricultural lime was purchased, and the amount purchased, accompanied by a fee of one dollar for each element for which analysis is asked.

SECTION 6. All the samples of lime for analysis by or under the direction of the Agricultural Commission of Ohio shall be from goods that have not been injured in transit, or by exposure; the surface layer to be avoided when sampling oxide of lime, and the sample to be protected immediately by placing it in package or packages and promptly sealing before forwarding to the Agricultural Commission for analysis.

SECTION 7. The Agricultural Commission of Ohio is hereby authorized to make such rules and regulations as may be deemed necessary for carrying into effect their duties as prescribed by this act.

SECTION 8. The moneys received under the provisions of section 3 of this act shall, in so far as is necessary therefor, be expended for the purpose of sampling and analysis as provided in this act, and any balance

remaining thereof shall be paid into the state treasury accredited to the general revenue fund. The Agricultural Commission of Ohio shall in its annual report include a detailed statement of the samples so taken and the analyses so made. Such report shall also contain a statement of the amount and manner of disposal of the moneys collected in pursuance of this act.

SECTION 9. Any person who shall obstruct the Agricultural Commission of Ohio or its deputies, when in the discharge of any duty or duties prescribed in the foregoing sections, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred dollars, or more than five hundred dollars.

SECTION 10. If any purchaser of agricultural lime shall be injured by the guarantee of oxide of lime, or hydro oxide, or carbonate, or a mixture thereof, or other valuable ingredient falling short of the guaranteed amount, the measure of such injury which the purchaser is entitled to recover from the seller shall be twice the amount that the ratio of such shortage bears to the selling price; provided, that if the amount found is less than nine-tenths of the amount guaranteed the vendor shall be liable to a further penalty of a fine of twenty-five dollars for the first offense and fifty dollars for each subsequent offense, said fine to be paid into the fund provided for in section 8.

SECTION 11. In prosecutions under this act a justice of the peace, police judge, mayor, or similar court shall have final jurisdiction thereof.

STOP — LOOK — LISTEN.

A \$30.00 LICENSE FEE must be paid for each brand of AGRICULTURAL LIME sold or offered for sale in Ohio.

When filling in application for license, state minimum percentage of CALCIUM OXIDE with minimum and maximum percentages of MAGNESIUM OXIDE, if for BURNT LIME. For HYDRATED LIME state minimum percentage of CALCIUM OXIDE and CALCIUM HYDRATE with minimum and maximum percentages of MAGNESIUM HYDROXIDE with minimum and maximum percentages of MAGNESIUM OXIDE and MAGNESIUM HYDROXIDE. For LIMESTONE ROCK or MARL state percentages of CALCIUM and MAGNESIUM CARBONATE and the percentages of the total material that will pass through a 10—50—100 Mesh Sieve to the linear inch.

OFFICAL REPORT
ON
FEED STUFFS

**Condimental Feeds, Animal and
Poultry Regulators, Conditioners,
Tonics, Etc.**

**LICENSED, INSPECTED AND ANALYZED
DURING THE YEAR**

1913

(635)

1913

THE TREND OF THE TIMES

Sixty years ago there was no knowledge of scientific feeding. Not until ten years ago did Ohio have a Feeding Stuffs Law. As new feeds were placed on the market the law was changed to meet conditions that then governed the sale and inspection of Feeding Stuffs.

Not until this year were Animal and Poultry Regulators, Conditioners, Tonics, etc., made subject to registration and State Control. Since this "feature" was enacted into law, certain interests have attacked its validity in order to render void, if possible, its effect upon the trade.

The public has paid little or no attention to the extravagant claims made by manufacturers of these preparations, which are advertised as appetizers as well as for their medicinal properties. Had buyers weighed carefully these claims it would have saved them thousands of dollars expended in the purchase of many worthless products.

Respectfully,

A handwritten signature in cursive script that reads "A. P. Sandler". The signature is written in dark ink and is positioned above the word "President."

President.

(636)

ITEMS OF INTEREST.

INSPECTION AND ANALYSIS OF FEED STUFFS, CONDITIONERS, TONICS, ETC.

Ohio's first Feeding Stuffs Law was passed in 1904.

It remained practically as originally drawn until 1913, when the State Legislature amended it by including Condimental Feeds, Animal and Poultry Regulators, Conditioners, Tonics, etc.

There has long been need of information concerning the ingredients and claims made for these particular preparations advertised as appetizers and for their medicinal properties.

The year's work as a whole relative to the licensing and inspection of Feeding Stuffs, Condimental Feed, Conditioners, Tonics, etc., has been quite satisfactory.

Manufacturers to a large extent are complying with the law with little or no friction, and are endeavoring to do the fair and square thing by the purchaser.

One phrase of the inspection work is annoying, and no valid reason exists for its continuance.

For this the manufacturers themselves are to blame, namely: The shipping of unlicensed goods into the state during the month of December, together with their reluctance to pay license fee when called upon to do so.

License fees are due and payable the first of each year; thereby giving the manufacturer or shipper the entire 12 months in which to do business. If they delay taking license at that time, why should they object to payment of fee in December? In some instances they undersell those who paid their \$25, trusting to luck that samples of their goods will not be located by inspector and they called upon to make good. This is an injustice to those who have license. Why then should the department not exert every effort to collect the \$25 due?

Feeders should exercise discrimination in the purchase of Feed Stuffs, for there is a likelihood of a heavy demand for certain feeds, thereby making it possible for the manufacturer to raise prices beyond the amount justified by its feeding value.

This inspection work is done in the interest of and to protect the feeder.

No Feed Stuffs, Condimental Feeds, Animal and Poultry Regulators, Conditioners, Tonics, etc., should be purchased unless duly licensed by manufacturer, shipper, or vendor.

Before Feed Stuffs, Condimental Feeds, Animal and Poultry Regulators, Conditioners, Tonics, etc., can be sold, application must be filed with the Division of Agriculture at Columbus, O.

Application must contain guaranteed claims for protein, fat and fiber, also ingredients of which product is composed, except for Animal and Poultry Regulators, Conditioners, Tonics, etc., only necessary to name ingredients.

If the buyer wants protection only licensed goods should be purchased.

Feeders should assure themselves that tankage and other feed stuffs do not contain the germs of cholera before feeding same to their hogs.

BRANDS LICENSED.

In 1908, 171 brands were licensed.

In 1909, 303 brands were licensed.

In 1910, 372 brands were licensed.

In 1911, 472 brands were licensed.

In 1912, 466 brands were licensed.

In 1913, 602 brands were licensed.

License fee is \$25 per brand.

Publicity in Official Bulletin has greatly reduced the number of fraudulent feeds in Ohio.

All licensed brands appear therein.

Feed Stuffs, Conditioners, Tonics, etc., must be licensed each year, beginning January 1st.

Ohio State University furnishes official chemist.

Form of Labeling.

There should be some uniformity in printing sacks for Feed Stuffs, so we give below the following form:

NET LBS.

Name of Brand.

Protein	-----	%
Fat	-----	%
Fiber	-----	%

Ingredients.

Manufactured by

Why Have We Feed Stuffs Laws?

Before feed stuffs laws were enacted there were many fraudulent feeds on the market. The advantage in having such a law is that it enables purchasers to buy under guarantee analysis. If such laws had not been enacted how many would now have access to tables of Digestive Experiments, Feeding Standards, Energy Value of Feeds, or a Relation of Feed to Work Performed by Animal, etc.

How Can Buyers of Feed Stuffs Protect Themselves?

By refusing to accept shipments unless labeled, and at the same time notifying the Division of Agriculture of the Agricultural Commission of Ohio at Columbus, of the facts, and the matter will be given immediate attention. By paying strict attention to the result of analysis published from time to time in the Official Bulletins. These reports show whether or not the feed contains screenings, elevator dust, weed seeds, oat hulls, corn cob and other objectionable and cheapening "filler."

What Does a Company's Guarantee Mean?

When a company or firm's guarantee is maintained it should not be considered as testifying to the high grade of the feed or to the superlative character of their ingredients. The statement simply means that manufacturer has kept his promise.

What Has the Law Accomplished?

The practical withdrawal or lessening of low grade goods, and the up-grading of many brands. It has promoted intelligent buying, and the feeder has a better understanding of the feed nutrients and what his stock needs. The quality of the feed in Ohio today is far superior to that of previous years. Publicity given in the Official Bulletin is mainly responsible for this. Manufacturer is not over anxious to find his goods listed in the **DANGER COLUMN**.

Cost of Chemical Analysis for Feeders.

FEEDERS of commercial feeds, not manufacturers, dealers or agents, can send samples of feed stuffs for analysis to the Division of Agriculture for \$3.00, or \$1.00 for each element for which analysis is asked. In this way feeder can ascertain at a nominal expense whether or not goods purchased comes up to guarantee.

Analyses of Samples.

Correct analyses of all brands found on the markets of the state during 1913 with claims of manufacturers will be found in this Report. In addition to these, we print claims of the manufacturers for those brands not found on the market by the inspectors.

Our deputy inspectors collected many samples of feed, but were unable to find samples of all brands licensed. Of 602 brands licensed, the analysis of 507 appear in this Report.

Inspectors were unable to find samples not reported, so only claims of manufacturers are printed.

Microscopic analyses made of all brands. This is done to detect adulteration, as well as to determine the ingredients used in making up a compounded feed. They are also valuable in corroborating the evidence obtained by chemical analysis.

Dealers Take Warning.

Don't allow manufacturer to load you up with goods during December, unless it is their intention to take license the year following, as all licenses expire December 31st of each year, and any goods sold after that date, unless licensed by manufacturer or shipper, makes agent or dealer liable for fee.

Law requires manufacturer to pay \$25 each year for the privilege of selling or offering for sale, each brand of Feed Stuffs, Condimental Feed, Animal and Poultry Regulator, Conditioner, Tonic, etc., in Ohio.

Whenever manufacturer or shipper fails to pay fee, any person, company, firm or agent handling such goods is liable for fee named.

Any dealer selling Feed Stuffs, Condimental Feed, Animal and Poultry Regulator, Conditioner, Tonic, etc., unless licensed by manufacturer or shipper is subject to fine.

Subject to License.

A mixed feed containing either corn bran, wheat bran, screenings, sweepings, corn cob, oat hulls and such material must be licensed.

Fee \$25—Liability.

This amount cannot be prorated under the provisions of the Feed Stuffs Law. Goods found on the market at any time during the year will require license. All licenses expire with the calendar year, December 31st. Persons handling feed stuffs in Ohio should see that they are licensed to avoid liability.

Object of License.

Brands of feed stuffs must be licensed in Ohio. This is no guarantee of purity or high feeding value. This Department analyzes the goods as found on the market by inspectors. Chemist's findings are published side by side with manufacturer's claims. Purchaser must decide for himself as to the quality of the licensed goods offered for sale.

Inspectors.

Inspectors are prohibited from recommending any company's goods. Their duties are to collect samples of feeding stuffs as exposed for sale and forward them sealed to the Division of Agriculture, at Columbus.

FEED STUFFS COMMENT.

W. B. Johnson & Company, Brokers of Memphis, Tenn., during the early part of this year, shipped The Cincinnati Grain Company of Cincinnati, Ohio, 200 sacks of Cotton Seed Meal. As this firm was not registered in Ohio we made demand upon them for license fee of \$25.00. They came back with statement and copies of letters showing goods were sold f. o. b. Memphis.

The irregularity of shipment is that they borrowed tags from Humphreys-Godwin Company of Memphis, a competitor, showing straight 41.00% Protein claims, while this firm's license is only for guaranteed claims of 38.62%. The Humphreys-Godwin Company have license for "DIXIE BRAND" COTTON SEED MEAL at 38.62% Protein, while W. B. Johnson & Company sold the same goods under a 41.00% guarantee.

Dealers should therefore discontinue the buying of Feeding Stuff f. o. b. shipping point, for if goods prove inferior to representation, loss must be borne by purchaser, besides we very much question whether or not purchaser obtains goods any cheaper in lieu thereof. Ascertain from the Division of Agriculture at Columbus if shipper is registered.

WHEAT BRAN AND SCREENINGS.

The Ohio Feed Stuffs Law imposes a license fee of \$25.00 for the sale of Wheat Bran and Screenings.

Some few manufacturers have taken exception to this, saying that the buying of a better mixture than bran alone should be exempt from license. Our position in the matter is as follows:

Wheat Bran is a distinct product, and was so regarded before millers discovered that screenings had any feeding value at all. If Wheat Bran is adulterated with corn cob, oat hulls, corn bran, screenings, or other foreign material, you could hardly expect it to be called pure bran.

A license is required for WHEAT BRAN and SCREENINGS, just the same as for Wheat Bran and Corn Cob or similar mixtures.

While WHEAT BRAN and SCREENINGS together probably makes better feed than Bran alone, this does not warrant us in calling the compound Wheat Bran, which, as you know, is the coarse outer coating of the wheat berry. The fact that the value of the feed is increased does not enter into the proposition at all. Therefore goods labeled Wheat Bran with Ground Screenings not exceeding Mill Run must be registered if sold in Ohio.

FEEDING STUFFS DEFINITIONS.

Definitions of terms adopted by the Association of Feed Control Officials of the United States, November 17-18, 1911, November 18-19, 1912, and November 17-18, 1913.

Meal is the clean, sound ground product of the entire grain, cereal or seed which it purports to represent.

Chop is a ground or chop feed composed of one or more different cereals or by-products thereof. If it bears a name descriptive of the kind of cereals, it must be made exclusively of the entire grains of those cereals.

Screenings are the smaller imperfect grains, weed seeds and other foreign material having feeding value, separated in cleaning the grain.

Flax Plant By-Product is that portion of the flax plant remaining after the separation of the seed, and the baste fiber and a portion of the shives, and consists of flax shives, flax pods, broken and immature flax seeds and the corticle tissue of the stem.

Alfalfa Meal is the entire alfalfa hay ground, and does not contain an admixture of ground alfalfa straw or other foreign materials.

Linseed Meal is the ground residue after extraction of part of the oil from ground flaxseed.

Blood Meal is ground dried blood.

Meat Scrap and Meat Meal are the ground residues from animal tissue exclusive of hoof and bone. If they contain any considerable amount of bone, they must be designated **Meat and Bone Scrap**, or **Meat and Bone Meal**. If they bear a name descriptive of their kind, composition or origin, they must correspond thereto.

Digester Tankage is the residue from animal tissue exclusive of hoof and horn specially prepared for feeding purposes by tanking under live steam, drying under high heat, and suitable grinding. If it contains any considerable amount of bone, it must be designated **Digester Meat and Bone Tankage**.

Cracklings are the residue after partially extracting the fats and oils from the animal tissue. If they bear a name descriptive of their kind, composition or origin, they must correspond thereto.

Brewers' Dried Grains are the properly dried residue from cereals obtained in the manufacture of beer.

Distillers' Dried Grains are the dried residue from cereals obtained in the manufacture of alcohol and distilled liquors. The product shall bear the designation indicating the cereal predominating.

Malt Sprouts are the sprouts of the barley grain. If the sprouts are derived from any other malted cereal, the source must be designated.

Buckwheat Shorts or Buckwheat Middlings are that portion of the buckwheat grain immediately inside of the hull after separation from the flour.

Rice Bran is the cuticle beneath the hull.

Rice Hulls are the outer chaffy coverings of the rice grain.

Rice Polish is the finely powdered material obtained in polishing the kernel.

Oat Groats are the kernels of the oat berry with the hulls removed.

Oat Hulls are the outer chaffy coverings of the oat grain.

Oat Middlings are the floury portion of the oat grout obtained in the milling of rolled oats.

Oat Shorts are the covering of the oat grain lying immediately inside the hull, being a fuzzy material carrying with it considerable portions of the fine floury part of the grout obtained in the milling of rolled oats.

Clipped Oat By-Product (term oat clippings not recognized) is the resultant by-product obtained in the manufacture of clipped oats. It may contain light, chaffy material broken from the ends of the hulls, empty hulls, light, immature oats and dust. It must not contain an excessive amount of oat hulls.

Corn Bran is the outer coating of the corn kernel.

Corn Feed Meal is the sifting obtained in the manufacture of cracked corn and table meal made from the whole grain.

Corn Germ Meal is a product in the manufacture of starch, glucose and other corn products and is the germ layer from which a part of the corn oil has been extracted.

Grits are the hard, flinty portions of Indian corn without hulls and germ.

Hominy Meal, Hominy Feed, or Hominy Crop is a mixture of the bran coating, the germ and a part of the starchy portion of the corn kernel obtained in the manufacture of hominy grits for human consumption.

Corn Gluten Meal is that part of commercial shelled corn that remains after the separation of the larger part of the starch, the germ and the bran by the processes employed in the manufacture of cornstarch and glucose. It may or may not contain corn solubles.

Corn Gluten Feed is that portion of commercial shelled corn that remains after the separation of the larger part of the starch and the germ by the processes employed in the manufacture of cornstarch and glucose. It may or may not contain corn solubles.

Cottonseed Meal is a product of the cottonseed only, composed principally of the kernel with such portion of the hull as is necessary in the manufacture of oil; provided that nothing shall be recognized as cottonseed meal that does not conform to the foregoing definition and that does not contain at least 36 per cent of protein.

Choice Cottonseed Meal must be finely ground, not necessarily bolted, perfectly sound and sweet in odor, yellow, free from excess of lint, and must contain at least 41 per cent of protein.

Prime Cottonseed Meal must be finely ground, not necessarily bolted, of sweet odor, reasonably bright in color, yellow, not brown or reddish, free from excess of lint, and must contain at least 38.6 per cent protein.

Good Cottonseed Meal must be finely ground, not necessarily bolted, of sweet odor, reasonably bright in color and must contain at least 36 per cent of protein.

Cottonseed Feed is a mixture of cottonseed meal and cottonseed hulls, containing less than 36 per cent of protein.

Cold Pressed Cottonseed is the product resulting from subjecting the whole undecorticated cottonseed to the cold pressure process for the extraction of oil, and includes the entire cottonseed less the oil extracted.

Ground Cold Pressed Cottonseed is the ground product resulting from subjecting the whole undecorticated cottonseed to the cold pressure process for the extraction of oil, and includes the entire ground cottonseed less the oil extracted.

Wheat Bran is the coarse outer coatings of the wheat berry obtained in the usual commercial milling process from wheat that has been cleaned and scoured.

Shorts or Standard Middlings are the fine particles of the outer and inner bran separated from bran and white middlings.

Wheat White Middlings or White Middlings are that part of the offal of wheat intermediate between shorts or standard middlings and red dog.

Shipstuff or Wheat Mixed Feed is a mixture of the products other than the flour obtained from the milling of the wheat berry.

Red Dog is a low grade wheat flour containing the finer particles of bran.

Wheat Bran with Mill Run Screenings is pure wheat bran plus the screenings which were separated from the wheat used in preparing said bran.

Wheat Bran with Screenings not Exceeding Mill Run is either wheat bran with the whole mill run of screenings or wheat bran with a portion of the mill run of screenings, provided that such portion is not an inferior portion thereof.

DESCRIPTION OF PRODUCTS.

COTTON SEED MEAL.

Cotton Seed Meal is a product of the Cotton Seed only, and is composed of the kernel and such portion of the hull as is necessary in the manufacture of oil. Cotton Seed Meal is sold as choice cotton seed meal and must contain at least 41.00% protein; prime cotton seed meal with not less than 38.6% protein and good cotton seed meal with at least 36.00% protein.

Cold Pressed Cotton Seed Cake.

Cold Pressed Cotton Seed Cake consists of the residue from Cotton Seed after the extraction of oil by what is known as the cold pressure system. In preparing this material the cotton seeds are delinted and the entire seed without heating or hulling is put into a screw and the oil extracted by pressure. The residue from this process consists of the hulls, meal and such lint as was not removed, and constitutes the Cold Pressed Cotton Seed Cake, which is sold as a feeding stuff without further crushing.

It is not as valuable for milk and butter production as an equal weight of Choice Cotton Seed Meal and hulls mixed in the proportion

of two parts of meal to one part of hulls. Report from the Texas station shows that Cold Pressed Cotton Seed Cake at \$25 per ton cannot profitably take the place of Cotton Seed Meal at \$30.

Cotton Seed Cake.

Cotton Seed Cake results when the envelope of the cotton seed is cut by machinery, and the oil kernels are freed from it. These oil kernels separated from the hulls are crushed, heated, placed between cloths or sacks and subjected to hydraulic pressure to remove the oil. The residue is a yellowish board-like cake about one inch thick, and in this form is shipped abroad. In this country it is ground and transported in sacks the same as linseed meal.

OIL MEAL.

Linseed Meal is secured from ground flaxseed, and is the residue left after extracting the oil. This is one of our most valuable and highly prized feeds especially for dairy purposes on account of the large amount of protein contained.

Linseed Cake or Meal.

Linseed Cake or Meal is rich in the elements of fertility, especially nitrogen. The voidings of animals receiving this feed should be carefully saved, otherwise it represents a terrible loss in fertility to American farmers.

The oil of the seed is removed by one of two processes.

Old Process Oil Meal.

The crushed seeds are heated and placed between cloths and subjected to hydraulic pressure, to extract the oil. This method is known as "Old Process" cake or oil meal.

New Process Oil Meal.

The seeds are crushed and heated and placed in vertical cylinders or percolates and over them naphtha is poured and allowed to drain out at the bottom of the cylinder. It dissolves the oil from the ground flax seed; no smell of naphtha is noticeable in the residue. After steaming, the meal is transferred from the percolates to driers. This by-product is known as "New Process" oil meal.

Method to Determine "Old From New Process" Oil Meal.

To ascertain whether Oil Meal is New or Old Process, Woll says: "Pulverize a small quantity of meal. Put a tablespoonful into a tumbler; then add ten tablespoonfuls of boiling water to the meal, stir thoroughly and leave to settle. If the meal is "New Process" it will settle in the course of an hour and leave about half of the water clear on top. "Old Process" meal will remain jelly-like.

BREWERS' AND DISTILLERS' FEEDS.

Malt sprouts are the dried shoots secured in the germination of barley in the production of malt.

Brewers' dried grains are the properly dried residue from cereals obtained in the manufacture of beer.

Distillers' dried grains consist of the residue from the manufacture of distilled liquor and spirits from the cereals.

These feeds furnish a cheap source of protein, and are valuable for supplementing farm grown grains, especially in the feeding of dairy cows.

PACKING HOUSE BY-PRODUCTS.

Blood Meal is ground dried blood.

Meat Scrap and Meat Meal are the ground residues from animal tissue exclusive of hoof and bone. If they contain any considerable amount of bone, they must be designated Meat and Bone Scrap, or Meat and Bone Meal. If they bear a name descriptive of their kind, composition or origin, they must correspond thereto.

Digester Tankage is the residue from animal tissue exclusive of hoof and horn specially prepared for feeding purposes by tanking under live steam, drying under high heat, and suitable grinding. If it contains any considerable amount of bone, it must be designated Digester Meat and Bone Tankage.

GLUTEN FEEDS.

The gluten feeds are of two classes: By-products from either starch or glucose factories, or from distilleries. The former are corn products only, and consist of the bran coating, gluten and germ; while the latter, dried distillers' grains, are composed of varying mixtures of cereals, corn, rye, barley, etc., from which the starch has been removed in the process of manufacture of distilled liquors.

HOMINY FEED.

Hominy Feed consists of the bran coating, the germ and a part of the starchy protein of the corn kernel.

MIXED FEEDS OF CORN AND OATS.

Generally sold under the name of Chop Feed by mixing corn and oats together. If composed of the entire grains of corn and oats no license is required. But if there be admixtures of corn bran, wheat bran, screenings, sweepings, corn cob, oat hulls, oat clippings, and materials of similar nature, license must be procured to avoid the penalties of the law. Oat hulls and corn cob meal have little feeding value and are common adulterants of feeding stuffs.

DAIRY FEEDS.

Are usually mixtures of commercial concentrates, and placed on the market to produce a "balanced" or ready ration. They should be palatable and free from mould and rancidity.

POULTRY FEEDS.

If to any of the standard grains there be added seeds, charcoal, marble grit, ground oyster or clam shells, or other foreign material, license is required. True character of the admixture must be stated in every instance.

MOLASSES FEEDS.

Mixtures of brewers' grains, malt sprouts, oat hulls, linseed meal, cotton seed meal, grain screenings, etc., with a considerable amount of cane or beet molasses, or a mixture of both.

ALFALFA MEAL.

Alfalfa Meal consists of ground alfalfa hay. The better grades of alfalfa meal contain a larger proportion of leaves than stems.

PROTEIN EQUIVALENT TO NITROGEN.

6.25% protein is equivalent to 1.00% nitrogen, or 1.22% ammonia.

GROUND PEAT USED AS A FILLER FOR COMMERCIAL FEEDS.

The Division of Agriculture was advised that there was being offered for sale in some of the States a ground peat which is used as a filler for commercial feeds. The Experiment Station at Wooster informs us that they have no knowledge of any possible food value in peat, and that it is possibly used to bring up the protein analysis, but that it is a kind of protein which will unquestionably be indigestible in the animal's stomach. Some peat contains from 2 to 3% of nitrogen, which would be equivalent to 12 to 18% of protein; that is, as protein is computed in feeding stuffs. There is probably no real protein in the peat.

SEEDS AND GRAINS.

Admixtures of seeds and grains classed as mixed feed and subject to license under the Ohio Feed Stuff Law.

ADVANCE REPORTS.

No advance Reports made of Chemist's findings on brands licensed. Those falling below claims are re-tested before publication in Bulletin.

FUNCTION OF THE NUTRIENTS.

Crude protein and crude fat are called nutrients because they build up and restore old tissues and maintain the animal's body.

Protein.

Protein is the most complicated of all the nutrients of a feeding stuff. It consists of the four elements—carbon, hydrogen oxygen and nitrogen. It has its counterpart in the various nitrogenous bodies found in the animal's system, and is the only source of these bodies. The function of protein, therefore, is chiefly to furnish the material for forming the flesh, sinews, nerves, hair, hoofs, horns, casein of milk and many other nitrogenous bodies found in the animal economy. Protein may also be utilized for the production of energy and the formation of fat in the animal's body, but since it is the most expensive of all the nutrients it should never be put to the latter uses, which can be accomplished as well by the cheaper non-nitrogenous nutrients, fat and carbohydrates.

Fat.

The function of the fat in a feeding stuff is two-fold. In the first place it can be directly assimilated and thus produce animal fat, and in the second place it may serve for the production of animal heat and energy. The energy produced by the digestible fat of feeding stuff is two and one-fourth times as great as that produced by an equal weight of carbohydrates.

Fiber.

Fiber has least value of all constituents of feeding stuffs. Its principal value seems to be as a source of roughness. A portion of the crude fiber of some feeds is digestible. However, digesting it consumes so much energy that a large portion of the value is taken up in the process of digestion. Corn cobs, oat hulls, peanut hulls, cotton seed hulls and similar material used as adulterants for feeding stuffs contain much fiber.

PERCENTAGE AMOUNT.

This is the amount in 100. If feed is guaranteed to contain 12 per cent protein, 3 per cent of fat and 7 per cent of fiber, every 100 pounds of it should contain 12 pounds of protein, 3 pounds of fat and 7 pounds of fiber, and a ton should contain 20 times these amounts.

SUMMARY OF THE LAW.

The law to regulate the sale of Feed Stuffs, Condimental Feeds, Animal and Poultry Regulators, Conditioners, Tonics, etc., in Ohio will be found on the last pages of this Report. Special attention is called to the necessity of labeling all packages, even when sales are made from original sacks or from bulk, showing number of net pounds, name of brand or trademark, name and address of manufacturer, shipper or vendor, with percentage claims for crude protein, crude fat and crude fiber, and the ingredients composing same, except that for animal and Poultry Regulators, Conditioners, Tonics and similar articles, a statement of ingredients only is required. Observance of these conditions of the law will be conducive of good feeding and confidence between this Department and parties most interested.

PENALTIES.

Violation of any of the provisions of the Feeding Stuff Law is punishable on conviction by a fine. Offender also liable for damages

sustained by purchaser for a deficiency of crude protein or crude fat, or an excess of crude fiber claimed to be contained in said feed stuffs.

License Liability is incurred on each brand sold after January 1st.

Violation of Ohio's Law to sell Feed Stuffs, Condimental Feed, Conditioners, Tonics, etc., without license.

Unless Manufacturer or Shipper pays license fee, any person, selling or offering for sale Feed Stuffs, Condimental Feed, Conditioners, Tonics, etc., shall be held liable for license fee of \$25.

Manufacturer can protect agents and dealers from prosecution by licensing goods.

Penalty of Law is avoided by retailer if license fee is paid by Manufacturer, Shipper or Broker.

Feeds Should Analyze up to manufacturer's claims.

Sec. 1132. "Feed Stuffs" in general shall be held to include all feeds used for live stock and poultry, and the following and similar articles of commerce; linseed meal, linseed oil cake, cotton seed meal, cotton seed cake, pea meal, cocoanut meal, rice meal, rice bran, rice polish, peanut meal, bean meal, gluten meal, gluten feeds, dried brewers' grains, dried distillers' grains, dried beet refuse, malt sprouts, hominy feeds, cerealine feeds, oat feeds, mixed feeds, alfalfa meal, molasses feeds, sugar feeds, mixed buckwheat bran, buckwheat hulls and buckwheat middlings, corn and corn cob meal, crushed ear corn, corn bran and corn siftings when added to other ground grains, wheat bran and screenings, ground or unground mixed feeds made from seeds or grains or grain offal, clover meals, dried blood, blood meal, tankage, ground beef or fish scraps or other animal or vegetable by-products; but such term shall not include hay, straw, whole seeds, unmixed meals made directly from the entire grains of wheat, rye, barley, Indian corn, buckwheat, broom corn, pure wheat bran or middlings, not mixed with other substances, when sold separately as distinct articles of commerce, nor entire grains of corn, oats, wheat, barley, buckwheat, ground together nor wheat bran and middlings not mixed with other substances.

THE PURCHASING OF FEED STUFFS.

BY ALFRED VIVIAN,

Agricultural College, Ohio State University, Columbus, Ohio.

The Ohio Code requires that with every brand of a feeding stuff sold within the State shall be furnished an analysis stating the percentages of crude protein, crude fat and crude fiber that it contains. It also places a penalty upon the sale of any brand which runs below

the guaranteed percentages of crude protein and far or above the stated percentage of crude fiber. It is often asked why these three substances are designated and what value attaches to a knowledge of the percentage of each which is present in the feeding stuffs.

What Makes Feeding Stuffs of Value to Animals?

In the first place it is evident that a feeding stuff to be of any real value to the animal to which it is fed must be digestible. The crude fiber is supposed to represent the more indigestible portion of the feeding stuff. Formerly it was considered to be wholly indigestible, but it is now known that a small part of the crude fiber can be utilized in the animal body. It is true, however, that the more crude fiber a feed contains the larger the waste during the process of digestion. Consequently for all practical purposes it may be assumed that the crude fiber represents the part of the feeding stuff which has no value whatever for the purchaser. To be sure, it has been shown that animals need a certain amount of crude fiber (roughage), but that can be best supplied in hay or fodder or other cheap material, and should be avoided when purchasing a concentrated feeding stuff. Recognizing this fact the law specifies that the percentage of crude fiber shall not run much above that given in the analysis.

What Are the Principal Constituents of a Feed?

The principal valuable constituents of a feed are protein, fat, carbohydrates (starch, sugar; etc.,) and ash (mineral matter). The law endeavoring to make the control of feeding stuffs as simple as possible, without materially decreasing its value, has selected for guarantee by the producer the first two ingredients (i. e. protein and fat) for the following reasons:

Is the Mineral Content of a Feed Considered When Buying?

First the mineral matter of the different feeding stuffs does not vary to such an extent as to make the determination of the same of any great value. While mineral matter is necessary to animal growth it is probably largely supplied by the coarser feeds such as hay, fodder and silage, and the amount of mineral matter in a concentrate would probably never be taken into consideration in purchasing the same.

Name Two Distinct Purposes in Animal Economy.

The organic constituents of the feed serve two distinct purposes in the animal economy. They must provide material to maintain the body machinery intact, and must supply heat or energy to enable the

body to do its work. Only one of the constituents of a feed can do both of these things. Protein is necessary to repair the waste which is continually taking place in the animal system, for all work which the animal does, every movement of the body, results in the destruction of muscles which must again be built up by protein. It is also necessary to furnish muscle making material for the growing animal and the casein in the milk of cows. It is, therefore, the most important ingredient of the feeding stuff, and as it is also the most expensive it is highly desirable that the purchaser should know just how much protein he is buying in each hundred pounds of feed.

Heat and Energy Supplied From What Elements?

Fat and carbohydrates each serve the same purpose in the animal economy (i. e. to supply heat or energy), and for the most part can be used interchangeably by the animal. A pound of fat, however, supplies two and one-fourth times as much heat or energy as a pound of carbohydrate, so other things being equal one could afford to pay much more for each pound of fat than for the same quantity of starch or other carbohydrate. The extra large value thus credited to the fat makes it desirable that the feeder should be thoroughly cognizant of the fat content of all feeds purchased.

Is the Rational Purchase of a Feeding Stuff Possible Without Some Knowledge of Its Analysis Contents?

Knowing the percentage of crude fiber, fat and protein, and realizing that the amount of ash is small in all concentrated feeding stuffs, it will be seen that the carbohydrates can be estimated closely enough for all practical purposes. The law, therefore, while it does not require a complete analysis, does demand a statement of the more important items, a knowledge of which is necessary to the rational purchase of a feeding stuff.

The question then arises as to which feed is the most economical to invest in, and so many factors enter into the matter that it is impossible to make general statements with any degree of accuracy.

What Feeding Element Should Buyers of Concentrates Study Closely?

The farmer who buys only moderate quantities of concentrates to supplement the feeds raised upon his farm should study most of all the protein content of the feeds considered. As a rule such a farmer has at home materials which provide all the crude fiber and heat or

energy forming compounds that he needs. Hay, fodder, silage, roots, corn, etc., are well supplied with fat and carbohydrates, but are comparatively low in protein. With plenty of such materials on hand, the farmer should examine the prices quoted to him with the idea of discovering which feeding stuff will give him a pound of protein at the lowest possible price. It does not follow from this that the other constituents of the feeding stuffs are valueless, but that he probably has sufficient of them at home or can grow them more cheaply than they can be purchased.

Is Anything Else Required; If So, Why?

The man who is purchasing a large proportion of the feeds for his stock (such as the dairymen of some of our large cities), has to take other things into account. His cattle must be furnished with energy as well as protein, and if he does not have a sufficient supply of feeds at home he must study the energy value of the feeds as well as the protein content. For such a man to buy intelligently, however, is a more difficult problem. He must first of all be quite sure that he is getting at the right price sufficient protein for the needs of his stock, and then must determine where he can buy the extra fat and carbohydrates needed at the lowest cost. Such a combination will probably never be found in one feeding stuff, but will require the purchase of two or more different materials, and, incidentally, necessitates more study of the subject than is generally given to it by the average purchaser of feeding stuffs.

Does It Require More Intelligence Now to Feed Profitably Than Formerly?

It requires more intelligence now to feed profitably than it did years ago, and it will require still greater intelligence as time advances. In the old days of inexpensive feeding stuffs it was very easy to make a profit. The price of feeds for many reasons will advance, and probably more rapidly than the prices of the products produced from feeding. With such a condition of affairs the only man who can hope for large returns in the future is the one who studies to supply his animals with the requisite protein and energy at the lowest possible price. Certainly no feeds should be purchased without full knowledge as to their analyses.

FEED FOR FATTENING STEERS.

BY PROF. C. S. PLUMB,

Department of Animal Husbandry, Ohio State University, Columbus, O.

Feeders of beef cattle in Ohio must study the cost of production with much care. High priced feed and high priced land make it difficult to feed steers with profit.

Desirable Combination.

Under our ordinary Ohio farm conditions, clover hay, corn stover, corn on the ear, shelled or as corn meal, with oil meal or cotton seed meal in a small way, will give good results. The use of ten to fifteen per cent oil meal or cotton seed meal, with 85 to 90 per cent of corn will make a very desirable combination. At present prices, cotton seed meal is one of the very cheapest concentrated foods the steer feeder can buy. If one has good clover hay, this with corn alone, will do very well. In steer feeding experiments at the Indiana experiment station, a combination of about 8½ pounds clover hay and 19½ pounds corn gave an average daily gain of two pounds for 1,000 pound steers.

Steer fed clover six months did distinctly better than those fed timothy in place of clover.

Value of Silage.

In the economical feeding of cattle no food surpasses silage in value. Many silos are being constructed in Ohio in these recent years, but mainly for use with dairy cattle. Yet enough feeding has been conducted with steers, where silage formed a part of the ration, to demonstrate that this is a most valuable food. The experiment stations of Ohio, Illinois and Indiana have conclusively shown that steers fed silage made good use of it. Mr. Carmichael, at the Ohio station, fed one lot of steers a combination of 24.3 pounds silage, 5 pounds mixed hay, 0.8 pounds corn stover, 14.9 pounds shelled corn, and 1.7 pounds cotton seed meal, and another lot of 11.2 pounds mixed hay, 1.7 pounds corn stover, 17.8 pounds shelled corn and 1.7 pounds cotton seed meal. The steers had an average weight of 955 pounds each and were fed 140 days. The silage fed lot required 714 pounds of grain, 1,043 pounds silage and 215 pounds of hay for 100 pounds gain in live weight, while the other lot required 845 pounds grain and 845 pounds mixed hay for 100 pounds gain. Cattle fed silage ship equally well with those not so fed.

Our Ohio farmers engaged in steer feeding, will do well to establish silos on their farms, if they have not already done so, if they wish to make use of one of the cheapest and most palatable food stuffs for cattle.

PHOSPHORUS AND LIME FOR CHICKEN FEEDING.

BY F. S. JACOBY,

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The importance of phosphorus and lime in a ration for growing chicks is recognized by practically all poultrymen. The grains and foods ordinarily used for poultry feeding do not contain sufficient phosphorus and lime to supply the needs of a growing chick. This lack may be supplied by the addition of animal by-products to the ration. Animal by-products besides supplying lime and phosphorus also add to the palatability and digestibility of the ration.

Name Materials Containing Lime and Phosphorus That Are Valuable as Chick Feeds.

There are a number of foods on the market which contain sufficient lime and phosphorus to make them valuable as chick feeds. Among these are ground or granulated rock phosphate, ground oyster shell, granulated bone or bone meal, green cut bone and certain limestone grits. In a series of experiments at the New York (Geneva) Experiment Station it was found that the mineral ash served a greater purpose than merely assisting in grinding the food. The mixing of sand in the food, resulted in better health for the chicks and a more efficient use of the food, and ground rock phosphate and sand together, gave better results in growth and digestion than sand alone. The addition of ground rock phosphate alone was followed by better growth and less consumption of food than the addition of finely ground oyster shell. Ground oyster shell was less healthful and less efficient than fine sand. These results would seem to indicate that mineral ash is necessary in the ration and its efficiency is increased when a good hard grit is present. The general use of ground rock phosphate is not recommended as a grit, although its value in supplying mineral matter is undoubted. The preparations of this material on the market are too expensive to justify their exclusive use. Finely ground, cut bone that is sweet and fresh will not only supply the lime and phosphorus, but will prove valuable as a source of protein. A combination of fresh ground bone or poultry bone with a hard quartz grit will supply the necessary ash and the grinding material

for rendering it available. Certain limestone grits can be purchased almost as cheaply as those containing no lime, but as a rule they are too soft to serve as grit. This is the objection to most dual purpose grits; if they are too hard the food material is not available and if too soft they lose their grinding value. The cost of these preparations is usually higher than the results of their general use will justify and the farmer and poultrymen must have a thorough understanding of poultry feeding before they can be fed intelligently and economically.

THE DEVELOPMENT OF THE FEED STUFFS INDUSTRY.

BY G. A. CHAPMAN, *President,*
The American Feed Manufacturers' Association, Chicago, Ill.

A history of the development of the feed stuffs industry in the United States would be a history of the growth of the United States in population and along agricultural lines, and a history of the development of the practice of scientific feeding in the United States.

Scientific Feeding Unknown Sixty Years Ago.

Sixty years ago there was no knowledge of scientific feeding in the United States. With the beginning of the teaching of scientific feeding in 1880 by Dr. Atwater, America's most worthy pioneer in the science of animal nutrition, at the Connecticut Experiment Station in Middletown, Conn., and three years later by Dr. Armsby and Prof. W. A. Henry at the University of Wisconsin, American feeders and American manufacturers began to realize the real value of by-product materials, many of the most valuable of which had at that time found no market and were considered as waste and expense to the factory or mill which produced them. By-product materials of the greatest feeding value, while produced in far smaller quantities than at the present time, were not sufficiently appreciated nor sufficiently needed to cause the farmer to make the effort to haul them from mill or factory to his farm, much less to buy them. The value of grinding the natural grains was only slightly understood and was practiced only in a limited way by a few of the most progressive and thoughtful feeders. Flour mills experienced the greatest difficulty in finding a market for their bran and middlings. While these by-products were probably the first to be recognized as of great feeding value, hundreds of thousands of tons were sold for a few dollars a ton or burned or run into the streams, for there was no market. Cottonseed meal as a feeding stuff was at that time unknown. Holes were dug into the

ground at the cotton gins and the seed was buried as a means of getting rid of it. Distillers' and brewers' grains, starch factory by-products, molasses, oatmeal mill by-product, oat clippings, beet pulp, and many others were frequently piled up in vacant lots to decay or run into the streams, or given to such farmers as could be induced to haul them away, and the earliest practical use of them was by the manufacturers who fed cattle with them in their wet or unground state at the factories. No attempt was made to dry them or put them into form to be used commercially. Instead of being sources of great revenue to the manufacturer they were in many instances the cause of great expense. Because of the waste and expense and the low prices realized, the cost of the main products—the food for human beings—was very greatly increased.

The Food Problem.

The problem of feeding the world, much less the problem of feeding the people of the United States, had not as yet commenced to trouble the scientist, the statesman or the business man. No one expected that in the short space of sixty years all of our available lands would be occupied and that our population would have increased from twenty-one million to ninety-one million people, and that the problem of the cost of living, the cost of food, would during the lives of people then living be the thought and problem uppermost in the minds of our people. That this is the thought uppermost in the minds of our population today is evidenced by the daily conversation of our friends, by what we read in the newspaper, by the action of our National Government in providing a Commission for investigation of its cause. President Taft, two or three years ago in speaking at the National Dairy Show in Chicago, drew attention to the fact that the food problem in the United States may in the near future become a serious one; that only about 150,000,000 acres of our land capable of tillage, either by irrigation, reclamation or drainage, remains uncultivated. He predicted that in fifty years our population will be 200,000,000 people.

On September 11, 1913, at a meeting of the British Association for the Advancement of Science, at Birmingham, England, an audience composed of the leading scientists of the world was warned by H. N. Dixon, one of the Presidents of this world famous organization, as follows:

“Civilized man is, or ought to be, beginning to realize that in reducing more and more of the surface of the earth to what he considers a habitable condition, he is making so much progress and making it so rapidly that the problem

of finding suitable accommodations for his increasing numbers must become urgent within a few generations. If prophecies based on population statistics are trustworthy, the crisis will be upon us before the end of the century."

It was only thirty-five years ago that the United States had a population of only one-half what it has today, and a man need not necessarily be a very old man who can well remember when our population was only one-fourth what it is today. Men living today will, and even you and I may, see today's population of the United States doubled. In speaking of population I refer to continental United States and not to Porto Rico, the Philippines, or any of the recently acquired territories. At the expiration of every ten-year period the census bureau totals up our population and finds that we have added approximately 20 per cent.

America's Greatest Problem.

It can readily be seen how rapidly we are approaching that condition foreseen by those who are giving thought to the matter. It is not a matter of looking forward and providing for coming generations—the problem is flatly up to us of today; it is a problem of providing for ourselves and our children who are with us now. There is no greater problem before the American people at the present moment, and nothing plays a more important part in this great problem than the matter of the feed supply for our domestic animals, for the feeding of live stock, with the exception of work animals, is but the process of transforming materials unsuitable for direct consumption by man into human food—meat, dairy products, eggs, poultry, etc.

The American Beef Packers' Association recently held a meeting in Chicago and appropriated \$500,000.00 for a fund to be used in an educational campaign to increase the interest in the raising of beef cattle in this country. The high cost of beef is purely the result of the demand overtaking the supply; it is not the result of exorbitant profits on the part of the packers nor the cornering of the market. Spread every cent of profit which the beef packers of this country make in the course of a year over the total number of pounds of meat consumed, credit that profit to the consumer instead of the packer, and there will hardly be a noticeable reduction in the cost per pound of Porter-house or of chuck. There can be but one cause for the rapid and constant decrease in the raising of beef cattle and that is that our lands are now occupied by the small farmer, who is more profitably engaged in raising other crops for human consumption; that there is a limit to the price which the consumer can pay for meat;

that the price of grain and feed stuffs has become too high to make it profitable to feed beef cattle.

Dairy Industry Growing.

While beef cattle are decreasing the dairy industry is rapidly growing. More human nutriment can be raised on an acre of ground, through the medium of a dairy cow, than by any other means. The dairy industry began in our Eastern states and is rapidly traveling westward, occupying land which had previously been used in raising grain and beef cattle. So rapidly has the western development of the dairy industry progressed that I am reliably informed that the State of Wisconsin now stands first in the number of dairy cows of all the states of the Union, having replaced the great state of New York in the position which everyone thought it would always occupy. Iowa now stands third in dairy cows and Minnesota fourth, and even Kansas has almost half as many dairy cows of the State of New York.

It is only a matter of twenty-five to thirty years ago that the farmers of Kansas found little or no market for their corn, realizing only a matter of 10 or 12 cents a bushel, and they found it more economical to use corn for fuel than to buy coal. So great and rapid has been the development of this country, so enormous has been its increase in population, that today those same Kansas farmers—the same identical men who burned their corn for fuel, or sold it for 10 or 12 cents a bushel—have during the year 1913 sold their corn, the product of the largest crop this country ever raised, for as high as 75 cents a bushel at Kansas City. It is a noteworthy fact in this connection that Kansas, which formerly found its market for corn and oats in the East and Southeast, in recent years has virtually shipped no corn East and very little Southeast, the development of the West and Southwest causing a directly opposite movement of the grain from this Western territory.

Regardless of whether it is a year of plenty, like the crop year, 1912-1913, or a year of drought and partial failure like the present one, prices for our cereal crops will continue to climb to higher levels. At the end of the bumper crop year, 1912-1913, the year the United States raised the largest crops of corn, oats, barley and hay ever known, No. 3 corn sold as high as 78 cents per bushel, Chicago, and even higher at Kansas City. Statistics show only 15 per cent of the corn raised leaves the county in which it is grown.

The Real Conserver.

We of the present day have and must further devise, ways and means of conserving our food supplies and to check this upward ten-

dency of prices. Every by-product material and every material which contains feeding value must be conserved and utilized. Every material containing feed value has its proper and economical use. With the advancement of knowledge of scientific feeding comes constantly increasing appreciation of the by-product materials. There is hardly one of the now well recognized by-product feed materials but what has passed through a period of suspicion, criticism and condemnation. If a cow got the garget or a horse the colic, it was the new feed and not the manner in which the new feed had been used that was at fault; however, one by one these materials have emerged from the cloud of suspicion and their uses and abuses have become better known, and hardly one of them but what is constantly reaching a higher and higher level of prices.

With the knowledge of feeding standards began the real feed industry in the United States. Manufacturers, realizing that their by-product materials were intrinsically worth more than they were realizing, and in most instances far more than the natural grains from which they were produced, began installing machinery for grinding, drying and putting them into merchantable condition. Here, also, began the mixed feed industry which has grown and developed into one of the greatest industries of the country. There seems to be no question of doubt but what the manufacture of mixed balanced rations has done more to moderate the cost of feeding stuffs, and, consequently, the cost of human food, than any other influence. Without the influence of the mixed feed manufacturer, it is difficult to estimate where the cost of grain and animal feeds would have grown in recent years. The mixed feed manufacturer has been the real conservator of our feed resources; he has gathered together by-product materials, none of which in themselves constitutes a feedable balanced ration; and assembled them at strategic points and produced balanced rations of the highest type, containing all of the necessary nutritive elements.

Balanced Rations Now Fed.

Because of the wide use of by-product materials and the better understanding of balanced rations, there is hardly a feeder of today but what is either using a mixture of his own, or using one of the ready-mixed balanced rations. The desirability of using a mixed ration compounded from a large number of materials is now generally recognized. When a breeder desires to fit his stock for show purposes or desires to accomplish something extraordinary from his feeding operations, he endeavors to use as great a variety of feed materials as he can obtain, often using as high as ten different ingredients. It is generally recognized that an animal thrives better with a variety in his diet, just as is the case with a human being. That the mixed feed

manufacturer is occupying a position which is fundamentally and economically correct is certain. Few feeders have the knowledge, the time or the machinery in which to assemble, balance, grind or mix their rations. The farm labor problem is most acute, and if this mixing and blending can be done for the farmer, much has been accomplished. The economy of production in this item, just as in practically every other article which the farmer or any other consumer has to buy, lies in the large strategically located factory, with skilled and well posted buyers, mechanics, chemists, etc., whose knowledge of market conditions in the buying, whose knowledge of the science of compounding, and whose low cost of production because of large volume, make it possible to produce and deliver goods to the consumer more cheaply than he can possibly do the same work in an unscientific, imperfect and small way for himself.

We are making great progress in the utilization of our by-product materials. Thousands and hundreds of thousands of tons of materials which formerly went to waste are now being transformed into human food. As our necessities become greater, many other materials now going to waste will be utilized.

The development of the feed industry will be the greatest aid in solving the problem of the food supply for the untold millions of the future.

FALL AND WINTER MANAGEMENT OF THE BREEDING FLOCK.

BY J. W. HAMMOND,
Ohio Agricultural Experiment Station, Wooster, Ohio.

Observation of the flocks of the state strongly impress upon one the need, in many cases, not only for the breeding of better class of sheep, but for better methods of feeding and management. While the following paragraphs are not intended as an exhaustive treatise on sheep feeding, it is hoped that they may convey a few helpful suggestions regarding the management of the breeding flock, at least to the less experienced flock owners.

Fall Feeding.

The object of the shepherd in the fall should be to get the flock in proper condition for breeding and to get it in good flesh before the beginning of winter. The flock that goes into winter quarters in good condition will require less feed and will cause less worry on the part

of the shepherd than will the flock that is in a weakened condition due to insufficient feeding in the fall. The feeding of the ewes in the fall also has its effect on the size, thrift and uniformity of the lamb crop the following spring. While it is not desirable to have the ewes extremely fat at breeding time, it is quite generally conceded by shepherds that they are more likely to breed if they are in fair flesh. Also, if the ewes are put into uniformly good condition before breeding time, they will breed more nearly at the same time, resulting in a more uniform crop of lambs.

Pasturing in the Fall.

A quite common mistake is the failure to provide good pasture for the breeding ewes in the fall. Unless a good piece of bluegrass has been reserved, it is a good practice to sow a piece of rape so that it will be ready to pasture a few weeks prior to breeding time. There is a common belief among English shepherds that such green feeds at breeding time "flush" the system, which tends to bring the ewes into heat earlier and more nearly at the same time, and to produce a larger percentage of twins. Clover or alfalfa pasture should be used sparingly at breeding time, as it is the opinion of many shepherds that such "lush" feeds result in a failure to breed.

Another common mistake is to allow the flock to remain on bluegrass pastures so late in the fall as to work injury both to the flock and to the pasture. The bluegrass should be allowed to make sufficient growth in the fall to protect it during the winter. Rape and rye furnish an abundance of fall feed and are excellent crops with which to supplement bluegrass pasture. Rye may be conveniently grown in connection with silage corn by sowing it in the corn at last cultivation or by delaying seeding until the corn is cut. In a favorable season it will furnish a large amount of pasture not only in the fall but in the following spring before it becomes necessary to plow the land for the next crop.

From three to four weeks before the beginning of the breeding season the ewes should receive from one-fourth to one-third lb. of grain per head daily, the amount depending on their size and condition. This grain ration may well consist of four or five parts of corn to one part of pea size oilmeal or equal parts of corn and oats if oats are not too high in price.

During the fall and early winter, while the sheep are still on pasture, they should be kept inside during cold rains. Aside from the resulting discomfort and lack of thrift on the part of the sheep, it requires a large amount of feed to furnish sufficient heat to evaporate the water absorbed by the fleece during exposure to cold rains or snows.

Winter Feeding.

While a few successful shepherds who have an abundance of good clover or alfalfa hay, winter their breeding ewes without feeding any grain until near lambing time, this is a practice not to be generally recommended. As a general rule, far more satisfactory results are secured by feeding some grain, the amount to be determined largely by the size of the ewes, the condition they are in at the beginning of winter and the kind of roughage fed. If the ewes have been properly fed in the fall and are in good flesh when put into winter quarters, about one-half pound of grain per head daily should be sufficient until near lambing time, when the amount should be increased.

Since Ohio is a corn growing state, it is quite proper that corn should constitute the greater part of the grain ration. In much of the literature on sheep feeding, corn is so severely condemned as a feed for sheep as to lead the reader to conclude that nothing but disaster can result from its use. In the mind of the writer, much of this unjust criticism of corn is due to the fact that such literature has been written by men outside of the corn belt where such feeds as oats, barley, peas and bran are relatively cheaper than corn and of somewhat better quality than are the same feeds when grown in the corn belt. While corn may be fed so injudiciously as to produce unsatisfactory results, experience has shown that when properly supplemented, corn may safely, and as a matter of economy should, constitute the greater part of the grain ration fed to breeding ewes. Linseed oilmeal and cottonseed meal are both rich in protein and ash, the two classes of nutrients in which corn is deficient, and at prices which usually prevail for feeds, either of these two feeds is the best and cheapest with which to supplement corn. If the roughage consists of a legume hay, such as clover, alfalfa, soybean, etc., the grain ration should consist of a mixture of 5 or 6 parts, by weight, of corn to 1 part of oilmeal. If a non-leguminous roughage, such as timothy hay or corn stover, constitutes any or all of the roughage, the proportion of the supplemental concentrate should be increased accordingly. The proportion of the supplemental concentrate should also be increased slightly as lambing time approaches.

Oats and bran are often used as supplements to corn on Ohio farms, but from the standpoint of economy, such a practice is usually an unsound one. The relative prices of corn, oats and bran generally are such that, unless the market is too far distant or unless there are other serious difficulties in the way of making the exchange, it is more economical to market the oats and purchase linseed or cottonseed meal. In repeated experiments at the Ohio Station, a grain ration of 5 parts of corn and 1 part of oilmeal, fed in connection with alfalfa

and clover hay to breeding ewes, has proved to be as efficient, cheaper and more convenient than one composed of a mixture of corn, oats, bran and oilmeal.

During the winter the breeding flock should receive all the roughage they will consume without waste, which, if no succulence is fed, will be from $1\frac{1}{2}$ to $2\frac{1}{2}$ pounds per head daily until the lambs are dropped, after which the consumption of roughage will be increased. Of the roughages available on Ohio farms, it is needless to state that none are better than the legume hays, of which clover and alfalfa are the most commonly grown. The soybean is another legume that can well be utilized for hay when the supply of clover or alfalfa falls short. It makes a hay which, when properly grown and cured, is readily eaten and much relished by sheep, and which has a feeding value fully equal to that of red clover hay.

On many Ohio farms where the supply of lime in the soil is insufficient for the production of large amounts of legume hays, timothy hay and corn stover must be relied upon to furnish a large amount of the roughage. Timothy hay, if cut early and properly cured, is eaten with fair relish by breeding ewes, and may constitute one-half the roughage fed, particularly if the other half consists of a legume hay. If allowed to become ripe before cutting, it has but very small value as a sheep feed. While corn stover is not suitable as a sole roughage for breeding ewes, it may well be fed in connection with a legume hay. It is relished by ewes if fed in the fall and early winter before it has become seriously deteriorated by the weather.

Silage as a Sheep Feed.

The ration for breeding ewes may be improved and often materially cheapened by the addition of some kind of succulent feed. For this purpose various kinds of root crops are relied upon by English shepherds, and have also been used to some extent by American shepherds, but in the United States silage constitutes by far the cheapest source of succulence. The experience of practical feeders and of experiment station investigators has proved that when it is properly made, preserved and fed, silage may be safely and economically used as a feed for sheep. Much of the dissatisfaction resulting from attempting to feed silage to sheep in the past may be attributed to irrational feeding or to the poor quality of the silage. It seems that sheep cannot safely eat an acid silage as can cattle, hence if silage is intended for sheep the corn should not be cut until it has reached about that degree of maturity when it is ordinarily cut into shocks. Silage also makes a safer feed if it is free from mould and if it is not fed while frozen.

While it has been pretty well demonstrated that silage has a

place in sheep feeding, experience thus far indicates that it should not constitute the sole roughage; that better results follow when some dry roughage, preferably a legume hay, is fed with it. Experience in feeding silage at the Ohio Station indicates that the most satisfactory results are secured by feeding $\frac{1}{2}$ pound of grain and $\frac{3}{4}$ to 1 pound of hay per head daily, and all the silage the ewes will consume, which is usually from 2 to 4 pounds per head. It should also be remembered that silage is a carbonaceous feed, and when fed to breeding ewes, particularly after lambing when it is important that a good milk producing ration be fed, it should be liberally supplemented with cottonseed or linseed oilmeal.

Feeding After Lambing.

After the ewes have lambled, special attention should be paid to their ration. The grain ration should be increased to 1 or $1\frac{1}{2}$ pounds per head and an abundance of good hay and succulent feeds provided. If the supply of legume hay is insufficient to last all winter, a good supply should be saved until lambing time. The ewe raising a lamb is performing work similar to that of a dairy cow in milk and should be fed similarly.

If the lambs are intended for early market, they should be encouraged to eat grain as early as possible and in liberal amounts. A "creep" should be provided behind which should be placed a grain trough and hay rack, where the lambs may eat unmolested by the ewes. Cracked corn, bran or crushed oats may be used for a short time at first, but as soon as the lambs learn to eat grain, there is nothing that will put on fat as rapidly and as cheaply as will whole corn. The lambs should be fed the choicest hay, and all uneaten grain and hay removed twice a day and fed to the ewes.

Turning Onto Pastures in the Spring.

While the ewes greatly relish fresh pasture early in the spring, it is a common mistake to turn them onto permanent pastures as soon as the first tinge of green appears. The sheep eat the grass down so closely as to limit its production later in the season, and at that time of the year the grass not only contains insufficient nutrients properly to nourish the ewes, but it spoils their appetite for dry feed. If rye has been sown in the fall as previously suggested in this article, it will furnish early pasture until the permanent pastures have made a good start. When the sheep are first turned to pasture in the spring they should be fed the full grain ration and as much dry roughage as they

will clean up. As the pastures become more stable in nature, the roughage may be dropped out and the grain ration gradually eliminated.

STATE INSPECTION AND CONTROL OF FEED STUFFS, CONDITIONERS, TONICS, ETC.

BY S. K. JOHNSON,
Division of Agriculture, Columbus, Ohio.

The Feed Stuffs law was passed in the interest of the feeder and for the protection of the dealer, and includes such articles of commerce as linseed meal, cotton seed meal, pea meal, cocoanut meal, rice meal, gluten meal, gluten feed, dried brewers' grains, dried distillers' grains, dried beet refuse, dried blood, tankage and similar articles.

From the Milling Industry we procure bran, middlings, red dog flour and mixed feed; from the Starch and Glucose Factories, dried starch refuse, germ meal and gluten meal; from the Sugar Beet Factories, dried beet refuse; from the Oil Industry, linseed meal and cotton seed meal; while the Slaughterhouse yields dried blood, meat scraps and animal tankage; the Brewers and Distilleries, malt sprouts, dried brewers' grains and dried distillers' grains.

Ohio's First Feed Stuffs Law.

Ohio's first Feed Stuffs Law was enacted in 1904. Prior to that time there was little or no need for State Inspection, as many farmers considered it an extravagance to buy feed for their stock as long as they could raise an abundance of hay, corn and oats. Today these are supplemented with feeds high in protein, and as there are many different kinds shipped from other States into Ohio, the feeder is indeed fortunate in having a law that protects him in his buying, while the dealer who sells only goods of merit will continue to exercise discrimination and judgment when placing his order.

As the number of brands has increased since 1904 from 64 to 602 recorded in 1913, so the Feed Stuffs Law has kept pace with changing conditions. For with the advancement in the knowledge of scientific feeding, and a constantly increasing appreciation of the by-products materials, which have to pass through a period of suspicion and condemnation, so necessarily have the laws been changed and amended

to cover these different by-products as they are placed on the market from time to time. Today, Ohio has a law that is enforceable; one that is just and valuable to manufacturer and feeder alike.

Enforcement of the Feed Stuffs Law.

To the Division of Agriculture was delegated the power of enforcing the Law governing the sale of Feed Stuffs, Condimental Feeds, Animal and Poultry Regulators, Conditioners, Tonics, etc.,

when sold within the State, by requiring such labeling, branding or markings as may be deemed necessary in the interests of the purchasing and consuming public.

Before such laws were enacted there were many fraudulent feeds upon the market.

The advantage in having these laws is that it enables purchaser to buy under guaranteed analysis and State Inspection.

Only within recent years have feeders paid any attention to the protection afforded them, while many disregarded altogether the quality of the goods for which they paid their good money.

By eliminating the sale of Garbage Tankage for Animal Tankage; by exposing the use of Ground Peat as a filler for molasses feeds, through the medium of the Official Bulletin, by holding up shipments of adulterated goods until proper tags could be affixed to sacks and license taken, were the public convinced of the need of good and adequate State Inspection.

Before Ohio had efficient Feed Stuff legislation, this State was a dumping ground for goods of inferior quality, and the laughing stock of dealers who delighted in violating its provisions. This has since changed and Ohio now stands on a par with the best of them.

Only recently a broker of Chicago shipped a carload of bran to a firm in Cincinnati. Upon its arrival there it was found to contain 8% impurities. The car was refused, and from last reports the shipment was still at Cincinnati, but in the custody of the Federal Government.

Previous Method of Inspection.

It was formerly the practice of Feed Manufacturers to forward to the Old Department of Agriculture a list of shipments made. Immediately Inspectors were dispatched to the points to obtain samples. This was deemed necessary in the interest of economy, as the income from license fees in those days was not sufficient to cover the cost of state wide inspection. Today every nook and corner of the State is visited and a thorough canvass made for samples.

Manufacturers and feeders alike are made acquainted with the law for their mutual good, and a feeling of co-operation exists between them and the officers of the Division of Agriculture.

Value of Good Inspection.

The value of good inspection depends upon the quality of men doing the work. In this respect the Division of Agriculture has cause for self-congratulation. The position is not a job for the idler, or one lacking in tact, ambition or good judgment. They visit the wholesale grocer, the elevator man, the miller, the feed dealer, the car on the siding and the feeder all in one day. They must at times exercise considerable skill, not in the drawing of samples alone, but in handling the people with whom they come in contact, for the situations and problems that confront them are as changeable and diversified as the scenes of a moving picture show.

What Does Company's Guarantee Mean?

Unless Feed Stuffs are purchased under guaranteed analysis and State Inspection what assurance have you that goods are as represented? Their value depends upon the kind, quality and amount of protein, fat and fiber.

When a company's guarantee is maintained it should not be considered as testifying to the high grade of the feed or the superlative character of its ingredients. The statement simply means that manufacturer has kept his promise and nothing more. He may have promised little to begin with and in some instances this is only too true.

Improvements Made Since Enactment of the First Feed Stuffs Law.

Our first Feed Stuffs Law was a farce. It permitted manufacturers to claim both minimum and maximum percentages, these often running to extremes. Today, they claim minimum amount for protein and fat and maximum percentage for fiber, and buyer is no longer confronted, as heretofore, with a mass of figures covering the entire front of the sack. Then again, goods had to fall more than 2% below claims in protein and fat or show an excess of 2% in fiber before evidence of fraudulent intent could be presumed. Our present law demands that company's goods come up to guarantee analysis.

An improvement is also noticeable in the character of the advertising put out by the leading feed manufacturers. It was never as true or as honest as at the present time. Formerly names on sacks could not be accepted as designating goods shipped, for they were either false or misleading. Today, owing to the existence of the Association

of Feed Control Officials and the American Feed Manufacturers' Association, such method of labeling no longer prevails, while definitions have been adopted for articles of commerce that are in keeping with the facts. This has fostered a spirit of good will and eliminated the one of antagonism previously existing.

To say that Feed Stuffs Inspection in Ohio has not made tremendous strides since the passage of the first law would be a statement far from creditable to the Division of Agriculture.

A Word to the Millers.

It would seem that the intent of the Ohio Feed Stuffs Law was to exempt from license fee the sale of Pure Wheat Bran and Middlings. For years there was no demand for this by-product. It was a worthless offal, and the flour mills either burned their bran or blew it out to the four winds. Since then stock feeders have learned its true feeding value, and today it is one of our most valued by-products. Formerly there was no incentive to adulterate these feeds, but conditions have since changed and inspection now deemed essential, as adulteration could become very extensive without much danger of detection if it were not for Chemical and Microscopical examinations.

Some manufacturers consider it an imposition to require them to pay a license fee for the sale of Wheat Bran, or Middlings or Mixed Feeds when labeled—"Wheat Bran with Ground Screenings not exceeding Mill Run," "Middlings with Ground Screenings not exceeding Mill Run" and "Mixed Feeds with Ground Screenings not exceeding Mill Run" to conform to Federal Government requirements. The use of Wheat Screenings in Bran is one of the evolutions of the times, but there is a possible danger of the pendulum swinging too far in this direction and that some Screenings will be added to Bran and Middlings after milling.

We dislike to believe that the tendency is toward the lowering of standards that for years were maintained with little or no difficulty. Quality of goods is the first consideration and any deterioration from standard now existing will endanger the mixed feed industry of the State. This thought the Millers of Ohio should keep constantly before them.

While possibly Wheat Bran and Screenings make a better feed than Bran alone, this does not warrant us in calling the compound Wheat Bran. The fact that the value of the feed is increased does not enter into the proposition at all. Ohio goes further than most States in that it exempts from registration Pure Wheat Bran and Middlings, when sold as separate and distinct articles of commerce.

What Has State Control Work Accomplished?

First: It has emancipated the honest manufacturer from dishonest competition, and goods today are sold for what they are and not for what they seem to be.

Second: It has caused the practical withdrawal or lessening of low grade goods and the upgrading of many brands.

Third: It has promoted intelligent buying, and the feeder has a better understanding of feed nutrients and what his stock really needs.

Fourth: Quality of Feed Stuffs now sold in Ohio much superior to that placed on the market in previous years, while the protein contents of many brands considerably exceed manufacturers' claims.

Without the enactment of such laws, how many of us today would have access to tables of digestive experiments, feeding standards, energy value of feed, or a relation of feed to work performed by animals.

The Experiment Stations of the country are doing splendid work along the lines of scientific feeding, and much credit is due to the present Chief of Animal Husbandry at the Wooster Experiment Station.

CONDITIONERS, TONICS, ETC.

Within the past year the Legislature has seen fit to extend to buyers of Condimental Feeds, Animal and Poultry Regulators, Conditioners, Tonics and the like, the same protection afforded Feed Stuffs purchasers for the past ten years.

Like all new and untried legislation it has aroused some opposition. In fact there still exists, in a certain locality of the State, a feeling of injustice over the passage of this law. However, this is only a ripple on the surface judging from the number of registrations made this year. Only recently the National Stock Remedy Association submitted a brief to the Division of Agriculture, setting forth their objections to the enforcement of this law.

Manufacturers of these products have been in the field so long uncontrolled, subject to no law but their own, permitted to make any and all kind of extravagant statements, that naturally they do not now care to be molested or forced to conform to any law, especially that pertaining to the labeling of their products. Why, are they afraid that true and accurate statements of their ingredients will force them out of business? If so, then Ohio is no place to market such goods. If you have a preparation that you are not afraid of, one that will do the work claimed for it, what more powerful weapon of publicity do

you want than the right to go before the people and tell them you are not afraid to name the ingredients of which your product is composed.

Ingredients.

Animal Regulators, Conditioners and Tonics are not very different from Poultry Conditioners, Tonics, etc., either in composition or the materials of which they are made. Most of them contain the old time remedies of Sulphur, Salt, Epsom Salts, Charcoal, Gentian, Anise Seed, Ginger, Cayenne Pepper, Fenugreek, Carbonate of Lime, (Shells), Nux Vomica, etc.

These remedies most farmers keep in stock or can buy cheaply at the village grocer or drug store.

Manufacturers apparently find it to their interest to conceal from buyer the common names of these ingredients, preferring to use their chemical equivalents, which are more confusing and bewildering to the purchaser.

For instance, Charcoal is given as Carbo-Ligni; Salt as Sodium Chloride; Epsom Salts, as Sulphate of Magnesia; Glauber Salts as Sulphate of Soda and Shells or Grit as Carbonate of Lime.

Claims.

Claims made for these preparations in advertisements and on containing packages are numerous and extravagant and of two distinct kinds.

First: They are appetizers giving forth a delightful odor and taste to the food—thus inducing the stock to eat more of it and also causing them to digest it better than they otherwise would.

Second: The Feeds have great medicinal value. Claims made under the latter head are as extravagant as those made for the patent medicines sold for human use, and are supported, in some instances, by testimonials just as valuable. Some are advertised to cure hog cholera, to make pigs grow quickly and dairy cows produce more milk and better butter. Prices asked for these products are out of all proportion to their value, either as a feed or a medicine. To pay from ten to twenty-five cents a pound package, or \$200 to \$500 a ton would seem ridiculous in the face of the little good accomplished.

When an animal is ailing and hardly sick enough to need the services of a veterinarian these preparations may be of some value. However, the main reason advanced for their use is that an animal will do better if he enjoys his food, on the same principle that a human being prefers a palatable and well flavored dish to a chemically prepared one.

As many thousand dollars are expended each year for these prod-

ucts, why have they not been subject to State Inspection before, and why should manufacturers not state ingredients of which they are composed?

TANKAGE AS A FEED FOR SWINE.

BY B. E. CARMICHAEL,

Chief of Animal Husbandry, Experiment Station, Wooster, Ohio.

Tankage, a packing house by-product consisting of bones, scraps of flesh, blood and offal of the packing industry, specially prepared for feeding purposes, has within recent years come to be extensively used by corn belt swine feeders. The fact that tankage is relatively high in protein and ash, nutrients which are not sufficiently abundant in corn for the needs of growing, fattening swine, makes it an exceedingly valuable supplement for use in connection with corn—the one farm grown feed that constitutes by far the largest part of the ration.

Use Feeding Tankage Instead of Fertilizer Tankage.

Not all tankage is of equal value for feeding purposes, since it may contain, according to its guaranteed composition, as low as 40% or as high as 60% protein. Either grade is a useful feed, but should be purchased and used on the basis of its composition rather than with the supposition that all tankage is alike and of equal feeding value. Even fertilizer tankage, which the manufacturers never intended (or, at any rate, never should have intended) for feeding purposes, has been sold for feed, and, in at least one instance, hogs did not do well after eating it. In the purchase of tankage, then, feeders should see to it that the tankage they buy is manufactured for feeding rather than for fertilizing purposes and should know what grade is being purchased, so that full value will be received for the money expended, and so that the tankage can be fed intelligently.

No Disease Germs in Properly Prepared Feeding Tankage.

On account of the fact that tankage is a packing house by-product, many have felt that there might be danger of its carrying disease germs that would cause losses when fed to swine. Tankage is, or should be, subject to a very high heat in the process of manufacture, and if this is done as it should be any germs that might possibly be present would be destroyed by this heat. So far as the writer is

aware no contagion has ever been spread by the use of tankage. On account of its exceedingly high protein content and high palatability, it is possible that a careless introduction of tankage into the ration would induce sickness on account of too large an amount being eaten at first. Instances have been reported in which this seems to have occurred; however, if reasonable care is exercised, no trouble of this kind need be encountered. In case of doubt, it would seem well for purchasers to inquire as to process of manufacture and refuse to purchase any tankage that has not been subjected to high heat, and given careful handling afterward.

Amount to Feed.

For growing swine that are being fattened approximately 10% of the 60% protein tankage, and 90% corn can well be used; if the 40% tankage is used a larger amount would be needed to supply the same amount of protein. If pasture is available, especially clover or alfalfa, or if well grown hogs that are mature or nearly mature are being fed, less than the above proportion of tankage would be needed. In fact, with an abundance of clover or alfalfa pasture, it is doubtful if hogs that receive a very light ration of corn would return a profit for any tankage that might be fed, excepting in the case of very young pigs for a few weeks after weaning.

Use Discretion in Buying Feeds.

There is a disposition on the part of some feeders to hesitate to purchase tankage or any other commercial feeds. On the other hand, it is possible for feeders to depend so largely upon commercial feeds that they will fail to utilize home grown feeds to good advantage. Either tendency should be checked, and all feeders of live stock should stand ready to feed any home grown or any commercial feed that will increase his profits. In order to know which will yield the most profit, the feeder should become familiar with the requirements of the animal he feeds and with the feeding value and market price of the various home grown and commercial feeds. This knowledge, which may be secured without much effort, will be of great value in making feeding operations more profitable and, therefore, more pleasant.

Proportion of Supplemental Feeds With Corn.

The following shows something of the approximate proportions in which tankage and a number of other supplemental feeds can well

be used for fattening shoats that weigh 100 to 200 pounds. In general, the amount of supplement may well be materially reduced as the fattening period advances.

Approximate Parts, by Weight, of Supplements to Use With Corn.

	Supplement.	Corn.
Soybeans	1	5
Skim milk.....	3	1
Butter milk.....	3	1
Linseed oilmeal.....	1	5
Meat meal (60% protein).....	1	9
Tankage (60% protein).....	1	9
Tankage (40% protein).....	1	6

Bulletins 209 and 213 and Circular 73 of the Ohio Station which report results secured from experiments in which various supplemental feeds were used with corn, may be had upon request to the Experiment Station, Wooster, Ohio.

ATTENTION!

Complaints reach this Department relative to the quality of Tankage being fed hogs.

Feeders should see that Tankage purchased is manufactured for feeding instead of fertilizing purposes.

Materials sold as a feed should have a feeding stuffs tag instead of a fertilizer tag affixed.

Buyers of tankage, dried blood, blood meal, meat meal, beef scrap, etc., to be used as a feeding stuff, are protected by purchasing only registered goods.

FEEDING DAIRY COWS.

BY PROF. OSCAR ERF,

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Since the price of feed is high the question of feeding cows economically becomes a very important one. Naturally the first thing to be taken into consideration is the adaptability of the animal itself. Years ago when feed was cheap, this question was of less importance.

In Choosing Feeds.

Next in importance to the individuality of the animal comes the feed problem. In choosing feeds several things must be taken into consideration; first the composition of the feed; second, the digestibility; third, the palatability; fourth, the succulency; fifth, the proportion of nitrogenous to non-nitrogenous nutrients; sixth, proportion of roughage to concentrates; and seventh, the fertilizing constituents.

Known Composition of Feeds.

It is necessary to know something about the composition of feeds in order to enable the feeder to determine the relative values of the feeds at his disposal, or on the market, and to assist him in determining what quantity of feed is necessary to supply the required amount of nutrients. The Division of Agriculture is doing much by giving the composition of the various feeds to the farmer. The value of some of the feeds can easily be determined by one glance over their reports.

Nutrients.

The nutrients found in feed stuffs that need the most consideration are protein, carbohydrates and fats. Protein is the most valuable of the nutrients, since it contains all the elements found in the carbohydrates and fats, the element of nitrogen. Therefore it is placed in a group by itself more than either of the other constituents.

Protein.

Protein in feed makes the protein in milk, therefore, in order to secure the greatest efficiency from the cow, it is necessary to feed at least ten per cent more protein than the amount found in the milk that the cow produces. Protein is found in considerable quantities in all leguminous hays, such as clover, alfalfa, cow peas and soy beans. The concentrated feeds that are rich in protein are usually cotton seed meal, linseed meal, some of the distillers' feeds and the glutens from the starch factories.

Carbohydrates.

Carbohydrates are the starches, sugar and resins of the feeds. While protein goes to make muscle and the protein of the milk, carbohydrates go to make the sugars and fats of the milk and the heat of the

body. Therefore, it is necessary to have at least 60 per cent more carbohydrates in the feeds than the amount of milk sugar found in the milk that the cow produces.

Fats.

Fats perform the same function as the carbohydrates in the body. Oils and fats as found in plants go to make fat in the body of the cow and also furnish heat. To a certain extent fats in the feed enter into the fat produced in the milk. Fat is not of as great importance as the other two constituents but some is needed.

The quantity of fat in the feed plays a very important role. It has been thoroughly demonstrated in the cow testing work that feed that has a high per cent of digestible fats, will have a decided effect upon the fat in milk of some of the good dairy cows. Flax seed, without the oil extracted, peanut meal, which is very rich in oil, copra, which is a dried cocoanut, also rich in oil, are exceptionally valuable when fed to good cows for raising the fat content of milk.

Ratio of Constituents.

Experiments and experience have proven that the proper ratio of these constituents in feeds should be as follows: About $2\frac{1}{2}$ pounds of protein; 13 pounds of carbohydrates; and $\frac{1}{2}$ pound of fat. This is for a cow that weighs 1,000 pounds and gives 20 pounds of milk per day. It is necessary to furnish these constituents in a ratio something like this to produce economical results.

Illustration of Constituents.

An appropriate illustration of these constituents can be found by comparing them to the building of a fence. We will suppose that the carbohydrates are the boards, the fats the posts and the proteins the nails. It takes a certain number of nails, posts and boards to make an efficient fence. If more nails are used, it is a waste; if less are used the fence will be inefficient. Comparatively the same relation exists between the constituents of the feeds. It is not absolutely necessary to have the ration mathematically correct. If the feeder feeds a large variety of feeds, he invariably gets the constituents in the proper proportion. It is the man who feeds one or two feeds to his cow that does not secure the proper results.

Nutrients in a Digestible Form.

All feeds should have their nutrients in a digestible form. Shoe pegs contain approximately the same chemical composition as oats

but not in a digestible form. Palatability also has much to do in feeding for economical production. Feeds can be made palatable by mixing them, moistening them and sometimes by heating them. A good feeder recognizes the value of this. Succulence is another important factor which nature furnishes while the cows are in pasture, but during the winter it should be artificially furnished and this is done very economically by means of the silo.

Proportion of Roughage to Concentrates.

The proportion of roughage to the concentrates varies according to the type of the animal. A large cow usually handles more roughage in proportion to the concentrates than a small cow. As for instance, Holsteins are capable of producing more milk solids from roughage than from concentrates and the Jersey cow is capable of producing more solids from the concentrates. As a rule about one-third of the ration should be concentrates and the remaining two-thirds roughage. A good way to feed, however, is to feed all the roughage that the animal desires and will easily clean up, and feed concentrates in proportion to the amount of milk that the cow produces. One pound of feed should be fed, as a rule, to every two pounds of milk produced.

Palatability.

By far, the most important feed requisite for high milk production is palatability, accompanied with digestibility. It matters not how digestible a ration may be, if it is not palatable to the cow, she will not consume the feed. The artful feeder is the man that can make his feed so palatable to the animal that she will constantly consume the maximum quantity. High feeding is profitable feeding. A cow that will only consume a little more than what she actually needs for body sustenance is an unprofitable cow. This can be illustrated by taking a specific case. A cow consumes 12 lbs. of concentrates, 36 lbs. of silage, 6 lbs. of clover hay. This cow will produce 40 lbs. of milk per day. It is assumed that 50% of the feed or in other words 6 lbs. of concentrate, 18 lbs. of silage, 6 lbs. of hay, goes for body sustenance, while the balance goes for milk production. By cutting the ration 25%, or in other words, by feeding 9 lbs. of grain, 27 lbs. of silage, 4 lbs. of hay, this same cow will produce but 20 lbs. of milk. Theoretically speaking, therefore, if you decrease the ration 25%, you decrease the milk production 50%. While we understand that in practice this does not work out in all cases exactly this way, and since there are even great variations, the general result indicates that the above conclusions are approximately true. On the other hand, if you increase the rations, the percentage of body sustenance

does not increase to any great extent, and hence a higher per cent of feed goes for milk production. As for illustration, if she were fed 3 lbs. more of it, since the same amount goes for body sustenance, the extra 3 lbs. of feed goes for milk production. Of course, there is an economical limit with some dairy cows, but with a good dairy cow, the economical limit is when she is foundered.

Ratio of Nutrients to Milk Production.

It is ordinarily recognized that the nutritive ratio 1.6 is approximately the right ratio to feed a dairy cow. Since it has been well established that the nutritive ratio of the maintenance ratio is 1:11 and the milk ratio of protein to carbohydrates of fat is approximately as 1:3.6, therefore it is readily recognized that the more milk a cow gives, the nearer it must approach the nutritive ratio of milk. Therefore a cow producing 80 lbs. of milk must, or ought to have a ratio that would be close to that of milk, namely, 1:4 or 1:3 $\frac{3}{4}$.

Concentration of Material.

It is very evident that to feed a cow for high production, which is profitable feeding when you have good cows to feed, one must bear in mind that as much of the undigestible material as can be removed from the grain, is a desirable thing to do. For illustration, when ground corn and cob are fed, the cob has very little nutritive value, and simply acts as a filler, and a hindrance in the digestive track of a good producing animal, but not economy for the average cow. So it is good policy to remove the corn and feed corn meal. This is a more concentrated feed, and if mixed with other feeds that will disseminate the meal, the cow will derive more benefit from it. In case this grain is to be still more concentrated, we advise the use of hominy, in which a large portion of the cellulose or skin material has been removed, or one could go even farther and feed a pure starch. However, a pure starch lacks protein and therefore is not as desirable as refined hominy. Oats can be concentrated first by clipping off the undigestible ends and grinding the clipped oats. It can be still more concentrated by removing the hulls entirely and feeding oat meal. Therefore, the higher the producing capacity of an individual, the more thought must be given to the material fed to the animal by lessening the rough undigestible material and supplementing it by digestible constituents.

When Buying Don't Ignore Fertilizing Elements.

When buying feeds the fertilizing elements in the feed should not be ignored. In fact, this point should be kept very clearly in mind

when buying feeds. Cotton seed meal is usually rich in nitrogen and its fertilizing equivalents amount to about \$21 per ton, compared with the ordinary fertilizers purchased and placed on the farms. Many of the distillery feeds are valuable as fertilizers as well as feeds. Hence, a feed that is high in protein, rich in phosphoric acid and potash, other things being equal, is to be desired.

Preparation of Animal.

To feed a cow for the greatest production one must prepare the animal somewhat, previous to the milk period. Hence, good feeds should be fed before parturition. When a cow becomes dry—and she should usually be dry for 6 weeks or 2 months—she should be fed the very best and proper of feeds and in such quantities as she can easily consume, in order that she may be in good shape for the period of lactation. When the cow is near parturition she should be in a fleshy or fat condition and when this is followed up with a good ration, the animal invariably produces her maximum quantity of milk.

Cost of Feeds.

There is much relative difference in the cost of various feeds, compared with their nutrients. The feed which contains the least amount of undigestible material and the least amount of water should be given the preference in price.

In feeding dairy cows it is necessary to have a cheap bulk ration, grown on the farm. For the past few years the cheapest has been corn and corn silage. The validity of this statement can be easily illustrated by the fact that a good average yield of ensilage per acre is fourteen tons. This when put into the silo and fed to cows at the rate of 30 pounds per day, would feed a cow about 200 days for \$6. The same cow would consume about 2½ tons of hay, which at the present time would be worth \$45. However, corn cannot be fed exclusively. Many "side dishes" should be given to increase the cow's appetite. The object of this is to develop the eating habit by alluring the cow with a variety of feeds and inducing her to eat more by giving her the feeds that are appetizing to her. The more she eats, the more she wants to eat. The easiest way to balance a ration is to supplement the bulk ration with the greatest variety of different feeds that can be secured, letting corn and its products, especially hominy, predominate.

The Proof of the Pudding is in the Eating.

We are pleased to announce that Ohio cows now hold the highest records in the world. Banostine Belle De Kol holds the world's record for butter fat for all breeds and stands at the head of the Holstein Friesian breed. Banostine Belle De Kol, Highlawn Hartog De Kol and Daisy Grace De Kol, who are all in the same herd, will average over 1,000 pounds of butter fat each, for one year. This is the greatest producing herd in the world and it is an Ohio herd. Spotswood Daisy Pearl, another Ohio cow, has just completed a year's record of 957 pounds of butter fat, which is equal to 1,225 pounds of commercial butter. This places her at the head of the Guernsey breed.

MOTTO.

Feed plenty, feed good feeds, feed a variety, feed often and you will be sure to get results.

SUGGESTIONS CONCERNING USE OF COMMERCIAL FEEDS.

BY B. E. CARMICHAEL,

Chief in Animal Husbandry, Experiment Station, Wooster, Ohio.

By far the largest need of Ohio farmers for commercial feeds is for those feeds that contain a relatively high percentage of protein. This is true because the ratio made up of farm grown feeds is more likely to be deficient in protein than any other food constituent. This, in turn, is largely due to the extensive use of corn (which is relatively low in protein) in some form or other in practically all live stock feeding operations in Ohio. Young grown animals that are pregnant or that are producing milk, more frequently suffer from lack of protein in their rations than do mature animals that are fed solely for maintenance, for fattening, or for work purposes.

Needs of Different Animals.

The needs of different kinds of animals should be considered in compounding rations. Such feeds should be used as will provide an adequate supply of nutrients in as palatable and wholesome form as is possible. Under some conditions only home grown feeds would

be needed or could be used at a profit. Under other conditions a relatively large use should be made of commercial feeds. Whether home grown, commercial, or both home grown and commercial feeds are used, they should be carefully selected, so as to yield the greatest possible profit.

Large Amounts of Commercial Feeds Shipped Into Ohio.

Ohio is not supplied with a large amount of cheap and efficient commercial feeds, produced within the state. On the contrary, commercial feeds, excepting wheat bran and middlings, are for the most part shipped in from other states. The great demand for bran and middlings has made the price for these by-products so high that many consider them too expensive, except for special use. Moreover, if all of the bran and middlings that would be yielded by the entire average wheat crop of Ohio were sold in the state, only about one ton per year of bran and middlings combined would be provided for each Ohio farm. In view of these facts it is indeed fortunate that there is available for use of Ohio feeders a large supply of commercial feeds from other states. The fact that many kinds of commercial feeds are available makes it all the more important for feeders to understand the value and limitations of the different kinds.

Feeds Relatively Rich in Protein Most Needed.

As previously indicated, feeds relatively rich in protein are most frequently needed, although it sometimes occurs that feeds low in protein are available at prices that make it possible to use them at a profit. Hominy feed, dried beet pulp and some of the mixed feeds are the low protein feeds that are most usually purchased. Feeders should seldom, if ever, pay more than corn is worth per pound for a commercial feed no higher in protein than is corn.

Why Mixed Feeds Are Not in Favor With Best Feeders.

The use of mixed feeds or of "ready rations" is not in high favor with many of the best feeders, as they feel that they can get better results if they do their own mixing of feeds. The plan makes it possible for them to combine feeds in accordance with the needs of their animals. It also makes possible a more intelligent buying of feeds. Feeds vary so much in price from year to year than an economical feed one year might be an extravagant one the next year. Moreover, materials of low feeding value, such as oat hulls, mill sweepings, low grade screenings, etc., are too frequently used in making mixed feed.

It should be remembered, however, that mixed feeds may be good and economical feeds. For the owner of a very small number of animals the convenience of mixed feeds is sometimes worth considering. The results of chemical analyses always useful in indicating the value of feeds, are of particularly high value in regard to mixed feeds.

Reason For Not Making Definite Recommendations of Rations.

It would not be possible even in an article much longer than this to make definite recommendations of rations that would always be economical, since market prices are so important and varying a factor. The Experiment Station is always ready to assist in selecting rations for farm animals upon request. In order to do this intelligently, the Station would need information concerning kind of live stock to be fed and local prices for farm grown and commercial feeds that are available.

BEEF PRODUCTION IN OHIO.

Suitability of Ohio Conditions to Beef Making.

BY PROF. WILLIAM HISLOP,

Department of Animal Husbandry, Ohio State University, Columbus, O.

The question of profitable beef production in Ohio is one of much importance, providing considerable subject-matter for differences of opinion under present conditions. The line of procedure that the future producer of beef may adopt is, of course, a matter of speculation, but it is reasonable to suppose that, while we will readily accept new and improved ideas, we will not be forgetful of, nor indifferent to the experiences of the past.

Beef Making a Question of Profit.

Beef making, like all industries is a question of profit, and beef raisers are endeavoring to make it permanently profitable by leaving destruction alone and getting down to construction. They are not breeding by accident, or by rule of thumb, but are applying the fundamental principles of breeding, feeding and management so essential to success. Today's supply and demand are such that there is more room for a larger constituency of producers than there ever was heretofore, while the opportunities for success are no less, provided the proper plan is adopted. History indicates that the controlling factor

in the development of the beef industry has been the utilization of territory, where the land was equally as well adapted to the growing of corn, wheat, fruit and vegetables, as to the production of beef cattle, but could not be so utilized because of the expense of transporting the former to the centers of population. Today beef cattle are produced on land that is by nature especially fitted to the industry. Nature has been beneficent in according to Ohio, Pennsylvania, West Virginia and Kentucky, large acres of rough hilly land, and level stretches of valley land. Such territory is exceptionally well adapted to beef-making, since the hilly land can be utilized for pasture and the valley land for the production of crops to be marketed through the cattle.

Grains For Beef Making.

Corn has always been fed more extensively than any other feed. It may be fed as shelled corn, snapped corn, broken ear corn, corn meal, corn and cob meal or shock corn. Each of these forms has its advocates. In nearly every case the hog is regarded by steer feeders as indispensable, and the amount of gain that is made by hogs following steers variously fed, is therefore, one of the deciding factors as the form in which corn may be most profitably fed to cattle. In general more combined beef and pork will be made, when corn is fed in the form of broken ear corn or shelled corn, than with corn meal or corn and cob meal as the chief component of the ration.

Snapped Corn

is the unhusked ear broken or snapped from the stalk. Some feeders fatten their cattle on this alone, claiming that the husk and cob furnish sufficient roughage, but better results would accrue from feeding silage and a legume in addition. Cattle fed snapped corn often suffer from sore mouths, in which case, they should be fed a mixture of corn and cob meal and wheat bran, or some other easily masticated grain mixture until the soreness disappears.

Shock Corn

makes a very satisfactory feed for fattening cattle. The husk prevents the corn from becoming too hard and difficult to masticate; furthermore, it is more easily stored than snapped corn, because in storing the latter, it is hard to keep up a free circulation of air. It may be fed out of a sheltered rack, or scattered about a field, but pigs should follow the steers to pick up the waste. One pig to a steer is sufficient. However, it is often more profitable to limit shock corn and supplement it with shelled corn and protein concentrate, such as cotton seed

meal, at the rate of $2\frac{1}{2}$ pounds per 1,000 pounds live weight of the steer. Alfalfa or clover hay when available, in addition to silage, will bring even more satisfactory results.

Husked Corn.

It is cheaper and more desirable to feed snapped or shock corn than husked corn. Husked corn becomes exceedingly dry and tends to produce sore mouths. Corn and cob meal and Corn Meal are about equal in feeding value for beef production, but more care must be exercised in the feeding of the latter, because it is much heavier feed.

Oats

are an excellent food for fattening cattle, but there are two objections to their extensive use. First, oats are too bulky to use to any great extent in a fattening ration, and second, the usual relative value of corn and oats makes oats a less economical feed than corn. Oats may be profitably used in connection with corn for fattening calves, but generally speaking, it is not profitable to feed oats to two year old cattle that are being fattened. Oats should be used as a supplement, rather than as a substitute for corn. A few days feeding on dry oats before shipping to market is recommended by good cattle men. In baby beef production, chopped oats are recommended as a supplement to corn at the start of feeding operations. It develops thriftiness, but as finishing approaches, such foods as corn, oil cake, cottonseed meal or gluten meal should be added. Where corn is not available and barley and oats grow, then a ration of 50% oat chop and 50% barley chop will be a good one. Oats fed in the sheaf form, if cut fairly green, are commonly fed, being scattered on the frozen ground. If oats be the main crop, then a ration of two-thirds oats and one-third barley meal finely ground will enable the cattle to thrive. Canadian feeders use the above rations almost entirely. Rye can be used as an ingredient of a fattening ration. During the early days in the Northwest, rye was used extensively. Often as much as 80% of a ration was composed of rye and the remainder oats and barley. With corn available, less rye would be used; however, to give variety, rye is excellent, but it must be ground to meal.

Roughage For Beef Making.

It is generally conceded that with inferior roughage it is impossible to develop cattle economically. Local conditions usually determine the choice of roughness, and the various hay crops, corn stover and silage are all valuable at certain periods of the steer's growth.

Pastures, the foundation rock of all successful systems of agriculture, will fit in with the forage crops grown on the farm. There is a steadily growing disposition to include more silage and legumes instead of the grass hays in the fattening ration. It has been clearly shown that the legumes, such as alfalfa and clover hay stimulate the appetites of the steers, make them more regular feeders, promote greater, cheaper and more rapid gains and better finish and when hogs follow increase the pork production. For beef making, alfalfa is believed to be superior to clover hay. Since corn is deficient in digestible protein, and since alfalfa and clover hay are both rich in that respect, they are excellent feeds for supplying the deficiency. Alfalfa has 10.5% digestible protein, red clover 7.1%, while timothy has but 2.8%, corn stover 1.7% and oat straw 1.2%. Thus the chemists analyses show that timothy hay, corn stover and oat straw are not well suited to supplement corn, which contains 7.8% digestible protein.

Silage

has come to be recognized by cattle men as one of the controlling factors in economical beef production. The silo confers many advantages upon its adherents. In all probability, the greatest advantage is the possibility which it affords of utilizing all the crop. The next most important argument is the palatability of the product, and the grain in the silage is as valuable as if harvested and fed. Furthermore there is a distinct saving in labor. Corn is pre-eminently the crop for the silo, because the yield of total nutrients per acre is greater than ordinarily secured from any other. In addition, corn packs well and contains the proper amount of sugar to form the acid needed to preserve it without becoming sour. The experiment stations of Ohio, Indiana, Illinois and Pennsylvania, have proved beyond doubt that silage in conjunction with shelled corn, alfalfa or clover hay and cotton seed meal, make the most economical ration. Two year old cattle on full feed will consume from 20 to 25 pounds of silage daily, along with 15 to 18 pounds of corn, about 5 to 8 pounds of alfalfa or clover hay and cotton seed meal at the rate of two and a half pounds per thousand pounds live weight.

Beef Cattle vs. Grain Farming.

The handling of beef cattle, as compared with specialized grain farming, assures the farmer who follows it of two fundamental things—first, a market for the grain and forage produced, and second, the maintenance of soil fertility and an increase in the acre yields. Whether one turns to the north, east or west borders of the state, the same result is always observed; that is, the most prosperous, the most

contented, the most progressive farmers are those who have handled beef cattle continuously, year in, year out, utilizing them to convert the grass, clover, alfalfa and corn into a more concentrated product. Grain farming to the exclusion of cattle always leaves a wake of abandoned farms and an exodus of the country's best blood to the city.

CLASSIFICATION OF FEEDING STUFFS.

Feeding stuffs offered for sale in Ohio can for convenience be divided into the following classes:

40% Protein and over: Cotton Seed Meal, Blood Meal, Meat Scraps, Feeding Tankage, etc.

30% to 40% Protein: Linseed Meal, some Distillers' Grains, Soy Beans, etc.

20% to 30% Protein: Gluten Feed, Corn Germ Meal, Calf Meal, Dried Distillers' Grains, some Malt Sprouts, Special Dairy Rations, Cow Peas, etc.

10% to 20% Protein: Dairy Feed, Wheat Bran, Wheat Middlings, Molasses Dairy Feed, some Distillers' Grains, Barley Meal, Corn, Wheat, some Hominy Feed, Alfalfa Feed, Sugar Feed, some Mixed Feed, etc.

Below 10% Protein: Corn and Oats Chop, Cotton Seed Hulls, Buckwheat Hulls, Low Grade Oats Feeds, Corn Bran, some Mixed Feeds, some Hominy Feeds, Dried Beet Pulp, etc.

THE WEIGHT OF ONE QUART OF VARIOUS FEEDING STUFFS.

The following table gives the average weight of one quart of the feeds named therein, and will be found useful to the feeder :

Cotton seed meal.....	1.5 lbs.
Linseed meal, N. P.....	0.9 lbs.
Linseed meal, O. P.....	1.1 lbs.
Gluten meal.....	1.7 lbs.
Gluten feed.....	1.3 lbs.
Germ oil meal.....	1.4 lbs.
Distiller's dried grains.....	0.5-0.7 lbs.
Malt sprouts.....	0.6 lbs.
Brewers' dried grains.....	0.6 lbs.
Wheat middlings (flour).....	1.2 lbs.
Wheat middlings (standard).....	0.8 lbs.
Mixed feed, wheat.....	0.6 lbs.
Wheat bran.....	0.5 lbs.
Oat middlings.....	1.5 lbs.
Rye feed.....	1.3 lbs.
Oats, whole.....	1.0 lbs.
Wheat, whole.....	1.9 lbs.
Barley, whole.....	1.5 lbs.
Rye, whole.....	1.7 lbs.
Corn, whole.....	1.7 lbs.
Oats, ground.....	0.7 lbs.
Wheat, ground.....	1.7 lbs.
Barley meal.....	1.1 lbs.
Rye meal.....	1.5 lbs.
Corn meal.....	1.5 lbs.
Corn and cob meal.....	1.4 lbs.
Corn bran.....	0.5 lbs.
Hominy meal.....	1.1 lbs.
Oat feed.....	0.8 lbs.

COMPOSITION OF LEADING FARM PRODUCTS.

It has seemed advisable to enlarge the list of Farm Products hitherto published in the bulletins of this Department, so as to enable the purchaser of feed stuffs to compare the same with ordinary feed stuffs produced upon the farm, which are not subject to official inspection and analysis. As the money value of the latter is fairly well known to the feeder, he can readily ascertain by comparison whether he is getting value received in purchasing the commercial articles.

COMPOSITION OF LEADING FARM PRODUCTS—Continued.

Feeding Stuffs.	Percentage Composition.		
	Protein.	Fat.	Fiber.
Concentrates.			
Corn dent.....	10.3	5.0	2.2
Corn bran.....	9.0	5.8	12.7
Wheat, spring.....	12.5	2.2	1.8
Wheat, winter.....	11.8	2.1	1.8
Wheat screenings.....	12.5	3.0	4.9
Rye.....	10.6	1.7	1.7
Barley.....	12.4	1.8	2.7
Oats.....	11.8	5.0	9.5
Rice.....	7.4	0.4	0.2
Buckwheat.....	10.0	2.2	8.7
Sorghum seed.....	9.1	3.6	2.6
Broom corn seed.....	10.2	3.0	7.1
Kaffir-corn seed.....	9.9	3.0	1.4
Millet seed.....	11.8	4.0	9.5
Hungarian grass seed.....	9.9	4.7	7.7
Flax seed.....	22.6	33.7	7.1
Flax seed, ground.....	21.6	30.4	7.3
Linseed meal (old process).....	32.9	7.9	8.9
Linseed meal (new process).....	33.2	3.0	9.5
Wheat bran.....	16.0	4.0	8.1
Wheat middlings.....	15.6	4.0	4.6
Cotton seed.....	18.4	19.9	23.2
Sunflower seed.....	16.3	21.2	29.9
Sunflower seed cake.....	32.3	9.1	13.5
Peanut kernel (without hulls).....	27.9	39.6	7.0
Soy bean.....	39.0	16.9	4.8
Cow pea.....	20.8	1.4	4.1
Roughage.			
Hay from Grasses.			
Hay from mixed grasses.....	7.4	2.5	27.2
Timothy, all analyses.....	5.9	2.5	29.0
Timothy, cut in full bloom.....	6.0	3.0	29.6
Timothy, cut soon after bloom.....	5.7	3.0	28.1
Timothy, cut when nearly ripe.....	5.0	2.2	31.1
Orchard grass.....	8.1	2.6	32.4
Red top, cut at different stages.....	7.9	1.9	28.6
Red top, cut in bloom.....	8.0	2.1	29.9
Kentucky blue grass.....	7.8	3.9	23.0
Hungarian grass.....	7.5	2.1	27.7
Barley hay, cut in milk.....	8.8	2.4	24.7
Hay from Legumes.			
Red clover.....	12.3	3.3	24.8
Red clover in bloom.....	12.4	4.5	21.9
Red clover, mammoth.....	10.7	3.9	24.5
Alsike clover.....	12.8	2.9	25.6
Crimson clover.....	15.2	2.8	27.2
Alfalfa.....	14.8	2.2	25.0
Cow pea.....	16.6	5.2	20.1
Soy bean.....	15.4	5.2	22.3
Pea vine.....	13.7	2.3	24.7
Straw.			
Wheat.....	3.4	1.3	38.1
Rye.....	3.0	1.2	38.9
Oat.....	4.0	2.3	37.0
Barley.....	3.5	1.5	36.0
Wheat chaff.....	4.5	1.4	36.0
Oat chaff.....	4.0	1.5	34.0
Buckwheat.....	5.2	1.3	43.0
Soy bean.....	4.6	1.7	40.4
Horse bean.....	8.8	1.4	37.6
Roots and Tubers.			
Potato.....	2.1	0.1	0.6
Beets, common.....	1.6	0.1	0.9
Beet, sugar.....	1.8	0.1	0.9
Beet, mangel.....	1.4	0.2	0.9
Turnip.....	1.1	0.2	1.2
Carrot.....	1.1	0.4	1.3
Artichoke.....	2.6	0.2	0.8

COMPOSITION OF LEADING FARM PRODUCTS--Concluded.

Feeding Stuffs.	Percentage Composition.		
	Protein.	Fat.	Fiber.
Corn Forage, Field Cured.			
Corn stover.....	3.8	1.1	19.7
Fodder corn.....	4.5	1.6	14.3
Corn husks.....	2.5	0.7	15.8
Corn leaves.....	6.0	1.4	21.4
Miscellaneous.			
Corn cob.....	2.4	0.5	30.1
Oat hulls.....	3.3	1.0	29.7
Dried blood.....	84.4	2.5	
Meat scrap.....	71.2	13.7	
Beet pulp.....	0.9		2.4
Dried sediment from distillery slops.....	27.4	12.3	8.0

TABULATED ANALYSES OF FEED STUFFS FOR THE YEAR ENDING DECEMBER 31, 1913.
 All Analyses Made by Ohio State University Chemist, Columbus, Ohio.
 Samples Retested and Results Confirmed.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		
207	ABEL BROS., CLEVELAND, OHIO. Arcade Chop.....	1913 Claimed Found	7.60 9.95	3.29 3.65	6.11 3.30			Corn and Oat Hulls.....	Ingredients as guaranteed.	
159	ACME-EVANS COMPANY, INDIANAPOLIS, IND. Acme Feed.....	1913 Claimed Found	16.50 17.05	4.00 4.20	9.00 7.90			Wheat Bran, Wheat Midds., Ground Wheat Screenings, Mill Run	Ingredients as guaranteed.	
261	ALLNEEDA MILLS COMPANY, EAST ST. LOUIS, ILL. Make M Lay Hen Feed.....	1913 Claimed Found	10.00 11.25	4.00 3.79	5.00 3.10			Corn, Oats, Kafir Corn, Wheat, Sun- flower, Wheat Screenings.....	Ingredients as guaranteed.	
263	Allneeda Horse and Mule Feed.....	Claimed Found	10.00 9.16	3.50 2.55	12.00 9.95			Corn, Oats, Alfalfa, Ground Wheat, Molasses, Salt.....	Ingredients as guaranteed.	
394	Jersey Sugar Feed.....	Claimed Found	10.00 8.80	3.00 0.60	20.00 19.20			Alfalfa Meal, Molasses, Salt.....	Ingredients as guaranteed.	
427	Allneeda Horse and Mule Feed (Dry).....	Claimed Found	9.50 10.80	3.50 1.60	15.00 15.80			Corn, Oats, Alfalfa, Ground Grain Screenings from Corn and Oats, 1% Salt.....	Ingredients as guaranteed.	
223	AMENDT MILLING CO., MONROE, MICH. Amco Scratch Grains.....	1913 Claimed Found	10.00 10.55	2.50 2.85	5.00 2.90			Wheat, Wheat Screenings, Kafir Corn, Barley, Buckwheat, Clipped Oats, Corn Germ, Linseed Oil Cake, Charcoal, Shell, Grit.....	Ingredients as guaranteed.	
364	Amco Chick Feed.....	Claimed Found	10.00 10.65	2.50 2.65	5.00 1.95			Ground Corn, Ground Kafir Corn, Milo Maize, Rc cleaned Wheat Screenings, Hulled Oats, Millet Seed, Grit.....	Ingredients as guaranteed.	

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		
	AMERICAN COTTON OIL CO., THE, NEW YORK, N. Y.	1913								
11	Choice Cotton Seed Meal	Claimed Found	41.00 40.30	9.00 8.00	10.50 9.35		Cotton Seed Meal		Ingredients as guaranteed	
74	Prime Cotton Seed Meal	Claimed Found	38.61 37.40	8.00 6.40	11.50 12.75		Cotton Seed Meal		Excess of Hulls.	
	AMERICAN DIAMALT CO., THE, CINCINNATI, OHIO.	1913								
79	Dried Grains	Claimed Found	20.00 24.55	6.00 8.00	20.00 18.95		Refuse from Extracted Barley Malt		Ingredients as guaranteed.	
	AMERICAN HOMINY CO., INDIANAPOLIS, IND.	1913								
68	Homocoline Feed	Claimed Found	17.00 18.15	5.00 6.75	7.00 4.85		White Corn		Ingredients as guaranteed.	
86	Homoco	Claimed Found	9.50 11.20	7.00 6.50	7.00 4.50		From White Corn		Ingredients as guaranteed.	
	AMERICAN LINSSEED CO., CHICAGO, ILL.	1913								
447	Old Process Linseed Oil Meal	Claimed Found	24.00 33.85	6.00 5.70	9.00 8.90		Linseed Oil Meal		Ingredients as guaranteed.	
	AMERICAN MAIZE OIL REFINING CO., INDIANAPOLIS, IND.	1913								
179	Maizena Germ Oil Meal	Claimed Found	18.00 19.25	8.00 6.80	3.00 5.75		Ground Hominy Hearts		Ingredients as guaranteed.	
	AMERICAN MALTING CO., HAMILTON, OHIO.	1913								
341	Sprouts	Claimed Found	25.37 23.51	1.63 1.15	12.20 15.05		From Barley		Ingredients as guaranteed.	

AMERICAN MILLING CO., PEORIA, ILL.		1913					
20	Sucrene Alfalfa Horse and Mule Feed	Claimed Found	11.00 14.15	2.50 3.60	12.00 11.20	Molasses, Alfalfa, Cracked Corn, Linseed Meal, Rolled Oats, Sunflower Seed, Buckwheat, Barley, Re-cleaned Grain Screenings, Salt	Ingredients as guaranteed.
21	Sucrene Scratch Feed	Claimed Found	10.00 11.25	3.00 3.25	5.00 2.20	Cracked Corn, Feed Wheat, Kafir Corn, Linseed Oil Cake, Sunflower Seed, Buckwheat, Barley	Ingredients as guaranteed.
32	Tip Top Scratch Feed with 5% Grit	Claimed Found	10.00 11.90	2.50 3.25	4.50 2.60	Cracked Corn, Feed Wheat, Wild Buckwheat, Kafir Corn, 5% Grit	Marble Grit; ingredients as guaranteed.
66	Sucrene Dairy Feed	Claimed Found	16.50 17.00	3.50 6.25	12.00 12.35	Molasses, Cotton Seed Meal, Gluten Feed, Ground and Bolted Grain Screenings, Clipped Oat By-product, Linseed Meal and Salt	Ingredients as guaranteed.
91	Amco Old Process Linseed Meal	Claimed Found	32.00 32.90	6.00 7.15	11.00 8.25	Flaxseed Product	Ingredients as guaranteed.
106	Sucrene Horse and Mule Feed	Claimed Found	10.00 12.70	2.50 3.60	12.00 11.70	Re-cleaned Grain Screenings, Molasses, Cracked Corn, Linseed Meal, Rolled Oats and Salt	Ingredients as guaranteed.
110	Mixing Feed	Claimed Found	12.00 16.15	2.50 5.70	12.00 11.00	Ground and Bolted Grain Screenings, Molasses, Linseed Meal, Clipped Oat By-product, Gluten Feed and Salt	Ingredients as guaranteed.
115	Amco Cottonseed Meal	Claimed Found	41.00 41.40	8.00 7.30	10.00 11.35	Cotton Seed Product	Ingredients as guaranteed.
145	Tip-Top Scratch Feed	Claimed Found	10.00 12.25	2.50 3.35	4.50 2.50	Cracked Corn, Feed Wheat, Wild Buckwheat, Kafir Corn	Ingredients as guaranteed.
153	Sucrene Chick Feed	Claimed Found	10.00 11.50	3.00 3.30	5.00 2.30	Cracked Corn, Kafir Corn, Cracked Feed Wheat, Millet Seed, Linseed Oil Cake	Ingredients as guaranteed.
243	Amco Alfalfa Meal	Claimed Found	13.00 15.30	2.00 1.70	30.00 28.70	Alfalfa Hay	Ingredients as guaranteed.
360	Sucrene Scratch Feed with 5% Grit	Claimed Found	10.00 18.06	3.00 3.60	5.00 2.55	Cracked Corn, Feed Wheat, Kafir Corn, Linseed Oil Cake, Sunflower, Buckwheat, Barley, Grit	Ingredients as guaranteed.
AMERICAN SHEET & TIN PLATE CO., MARTIN'S FERRY, OHIO.		1913					
425	Refuse Cleaning Mixture	Claimed Found	16.30 18.06	7.30 6.05	6.40 3.60	Middlings adulterated with about 2% of Palm Oil and about $\frac{1}{4}$ of 1% Tin	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		
297	AMMANN, W.M., CINCINNATI, OHIO. Malt Sprouts.....	1913 Claimed Found	18.00 23.65	1.00 2.55	16.00 9.85	From Barley.....			A little oats and weed seeds.	
310	ARCHER-DANIELS-LINSEED CO., MINNEAPOLIS, MINN. Old Process Ground Linseed Cake.....	1913 Claimed Found	32.00 32.85	6.00 6.75	10.00 8.40	Flaxseed Product.....			Ingredients as guaranteed.	
280	ARMOUR FERTILIZER WORKS, CHICAGO, ILL. Armour's Meat Meal.....	1913 Claimed Found	60.00 57.00	10.00 6.90	2.00 2.45	Meat residue.....			Ingredients as guaranteed.	
344	Eagle Chop..... BADENOCH CO., J. J., CHICAGO, ILL.	1913 Claimed Found	9.00 10.25	5.00 4.35	6.00 5.65	Oats, Corn and Corn Feed Meal.....			Ingredients as guaranteed.	
154	C-er-lay Poultry Feed, No Grit.....	1913 Claimed Found	9.50 11.05	2.50 3.20	5.00 2.75	Wheat, Cracked Corn, Kaffir Corn, Barley, Oats, Sunflower Seed, not over 1% Charcoal.....			Ingredients as guaranteed.	
155	C-er-lay Fine Chick Feed, with Grit.....	Claimed Found	9.50 10.05	2.50 2.55	5.00 1.85	Cracked Wheat, Cracked Corn, Kaffir Corn, Millet Seed, not over 8% Grit, 1% Charcoal.....			Quartz Grit, ingredients as guaranteed.	
226	Eg-a-day Meat Cereal Mash.....	Claimed Found	15.00 16.10	4.00 2.85	8.00 5.35	Alfalfa Meal, Oil Meal, Oat Meal, Corn Meal, Beef Scraps, Wheat Bran, Wheat Middlings, not over 6% Shell, 1% Charcoal.....			Ingredients as guaranteed.	
16	BAILEY, E. I., CLEVELAND, OHIO. "Pearl" Hominy Feed.....	1913 Claimed Found	9.00 10.40	7.00 6.30	8.00 3.95	Corn Product.....			Ingredients as guaranteed.	

280	BAIRD BROS., NELSONVILLE, OHIO. Chop.....	1913 Claimed Found	8.50 9.45	3.50 4.05	5.00 3.25	Corn, Corn Bran, Screenings, Oats.....	Ingredients as guaranteed.
146	BALTIC MILLS, J. & S. EMISON & CO., PROPR., VINCENNES, IND. IN. Blue Diamond Scratch.....	1913 Claimed Found	10.75 9.00	3.75 3.25	3.50 2.10	Wheat, Corn, Kaffir Corn, Oats, Bar- ley, Sunflower Seed, Corn Germs, Field Seeds, Carbonate of Lime.....	Considerable Carbonate of Lime.
244	Hominy Feed.....	Claimed Found	9.18 10.00	9.10 8.50	5.60 4.35	From Corn.....	Ingredients as guaranteed.
209	Blue Diamond Little Chick.....	Claimed Found	10.00 9.75	4.00 2.85	3.50 2.10	Corn, Wheat, Kaffir Corn, Barley, Field Seed, Carbonate of Lime.....	Ingredients as guaranteed.
270	Amo Syrup Feed..... BARTLETT CO. J. E., JACKSON, MICH.	Claimed Found	9.00 9.05	3.00 1.25	12.00 9.00	Corn, Oats, Alfalfa Meal, Grain Screenings, Molasses.....	Ingredients as guaranteed.
219	"Parmer" Brand Cotton Seed Meal.....	1913 Claimed Found	41.00 40.00	9.00 7.55	10.00 9.80	Cotton Seed Meal.....	Ingredients as guaranteed.
49	BARWELL, J. W., WAUKEGAN, ILL. Blatchford's Cal' Meal.....	1913 Claimed Found	24.00 25.25	5.00 4.75	6.00 7.35	Locust Bean Meal, Unpressed Flax Seed, Wheat Flour, Ground Beans and Peas, Oil Meal, Cocoa Shells, Coconut Meal, Recleaned Cotton Seed Meal, Fenugreek, Dried Milk and Salt.....	Ingredients as guaranteed.
139	Blatchford's "Fill the Basket" Egg Mash.....	Claimed Found	19.00 20.15	4.00 4.50	10.00 10.05	Blatchford's Calf Meal, Alfalfa, Bar- ley, Bone, Corn, Oatmeal, Wheat Bran, Wheat Midds., Beef Scraps, Fish, Capsicum, Limestone Grit.....	Ingredients as guaranteed.
387	Blatchford's Milk Mash.....	Claimed Found	19.00 21.05	4.00 3.50	6.00 6.10	Locust Bean Meal, Unpressed Flax Seed, Wheat Flour, Ground Beans and Peas, Oil Meal, Cocoa Shells, Coconut Meal, Recleaned Cotton Seed Meal, Fenugreek, Dried Milk, Salt, Corn Meal, Beef Scraps, Fish, Barley Meal.....	Ingredients as guaranteed.
215	BASH AND COMPANY, S., FORT WAYNE, IND. Bash's Standard Chicken Feed.....	1913 Claimed Found	9.50 9.55	3.00 3.30	5.00 1.75	Wheat, Corn, Oats, Barley, Rye, Kaffir Corn, Millet, Buckwheat, Sun- flower, Rape, Grit.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein	Crude Fat	Crude Fiber	Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.		
26	BECK CEREAL CO., THE, DETROIT, MICH.	1913					
		Claimed	8.31	5.10	5.81	Ground Corn, Oat Middlings, Oat	Ingredients as guaranteed.
		Found	9.80	5.50	5.85	Shorts, Oat Hulls.....	
54	Royal Hominy Feed	Claimed	10.00	5.89	4.00	Made from Corn.....	Ingredients as guaranteed.
		Found	9.40	4.95	2.15		
376	BEEBOWER BROS., WILLOUGHBY, O.	1913					
		Claimed	10.00	2.00	5.00	Oats, Barley, Kaffir Corn, Wheat,	Ingredients as guaranteed.
		Found	10.20	3.50	2.60	Buckwheat, Sunflower Seed, Oil Cake, Cracked Corn.....	
60	BELL & CO., M. E., GALLIPOLIS, O.	1913					
		Claimed	7.50	3.00	5.10	Corn, Oats, Corn Bran, Light Wheat..	Ingredients as guaranteed.
		Found	10.80	4.05	4.90		
204	BERDAN & COMPANY, TOLEDO, O. Manufactured by The Quaker Oats Co., Chicago, Ill.	1913					
		Claimed	10.00	2.50	5.00	Whole Wheat, Whole Kaffir Corn,	Contains Oyster Shells and Marble Grit.
		Found	10.35	3.50	2.10	Whole Barley, Charcoal, Cracked Indian Corn, Buckwheat and Sun- flower Seed	
229	BIG FOUR MILLING CO., THE, CLEVELAND, OHIO.	1913					
		Claimed	9.00	2.50	6.00	Corn, Wheat, Kaffir, Buckwheat, Sun- flower.....	Ingredients as guaranteed.
		Found	10.70	2.45	2.15		
230	Fourota Chick Feed	Claimed	9.00	2.50	4.00	Corn, Wheat, Kaffir, Millet.....	Ingredients as guaranteed.
		Found	11.10	1.80	2.05		
287	Dandy Chop Feed	1913					
		Claimed	7.00	3.00	12.00	Corn Bran, Oat Shorts, Oats, Oat	Ingredients as guaranteed.
		Found	9.45	3.70	10.00	Hulls, Screenings and $\frac{1}{4}$ of 1 % Salt	

212	BLAIR MILLING CO., THE, ATCHISON, KAN.	1913 Claimed Found	9.62 11.20	6.85 8.00	5.38 4.10	From Corn.....	Ingredients as guaranteed.
152	BLUMER-SARTAN PACKING CO., THE COLUMBUS, OHIO.	1913 Claimed Found	31.30 39.30	16.10 12.40	3.75 2.66	Packing House Offal.....	Ingredients as guaranteed.
268	BOYER MILL CO., H. W., COLUMBUS, OHIO.	1913 Claimed Found	11.00 10.15	3.60 3.00	4.00 1.90	Cracked Corn, Wheat, Kafir Corn, Sunflower Seed.....	No Sunflower Seed.
52	BRODE AND COMPANY, F. W., MEMPHIS, TENN.	1913 Claimed Found	41.00 45.25	6.00 6.80	10.00 8.30	Cotton Seed Meal.....	Ingredients as guaranteed.
246	BUCKEYE CEREAL CO., THE, MASSILLON, OHIO.	1913 Claimed Found	10.00 9.60	2.50 2.75	6.00 2.35	Cracked Corn, Kafir Corn, Wheat, Sunflower, Charcoal, Oats, Buck- wheat.....	Ingredients as guaranteed.
259	Energy Horse Feed.....	Claimed Found	13.00 12.00	4.02 3.70	13.30 6.85	Corn, Oats, Barley Feed, Alfalfa, Molasses.....	Ingredients as guaranteed.
262	Buckeye Chop.....	Claimed Found	8.00 7.75	3.50 3.00	8.50 14.10	Corn, Oats Middlings, Oat Hulls, Salt.....	Ingredients as guaranteed.
263	Buckeye Hominy.....	Claimed Found	8.30 9.25	6.10 5.40	7.10 2.50	Corn Products.....	Ingredients as guaranteed.
264	Malto Dairy Feed.....	Claimed Found	27.00 28.00	4.00 4.95	13.00 11.05	Malt Sprouts, Distillers' Dried Grains, Cotton Seed Meal, Barley Feed, Molasses, Salt.....	Ingredients as guaranteed.
278	Cremoa Dairy Ration.....	Claimed Found	25.00 26.15	4.00 3.90	13.00 10.75	Malt Sprouts, Corn By-product, Cot- ton Seed Meal, Gluten, Barley Feed, Distillers' Grains, Oil Meal Bran, Middlings.....	Ingredients as guaranteed.
343	Bar X Dairy Feed.....	Claimed Found	16.00 13.85	3.00 4.80	17.00 9.85	Cotton Seed Meal, Distillers' Dried Grains, Grain Screenings, Malt Sprouts, Salt, Molasses.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein	Crude Fat	Crude Fiber	Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.		
62	BUCKEYE COTTON OIL CO., THE, CINCINNATI, OHIO.	1913 Claimed Found	38.62 38.25	6.50 5.85	12.00 12.85	From Cotton Seed.....	Ingredients as guaranteed.
157	BUCKEYE GRAIN & MILLING CO., THE, COLUMBUS, OHIO.	1913 Claimed Found	12.00 12.25	5.00 3.20	12.00 9.60	Corn, Oats, Alfalfa, Brewer's Grains, Molasses.....	Ingredients as guaranteed.
177	Oatmeal.....	Claimed Found	10.00 10.95	4.00 3.95	9.00 4.40	Corn, Oats and Molasses.....	Ingredients as guaranteed.
184	Caramel.....	Claimed Found	10.00 10.95	3.00 1.75	14.00 12.25	Corn, Oats, Alfalfa, Brewer's Grains, Oat Shorts, Oat Hulls, Oat Mid- dlings, Molasses.....	Ingredients as guaranteed.
241	Alcorn.....	1913 Claimed Found	46.80 56.00	18.50 18.40	1.20	Meat, Bone and Blood.....	Ingredients as guaranteed.
27	Tankage.....	1913 Claimed Found	10.77 12.70	4.20 4.70	8.00 7.85	Wheat Bran, Corn, Corn Meal, Mill By-product.....	Ingredients as guaranteed.
124	BUSH BROS., GALLIPOLIS, OHIO. Dairy Mixed Feed.....	1913 Claimed Found	10.00 11.65	3.00 4.05	5.00 3.05	Wheat, Kaffir Corn, Cracked Corn, Barley, Oats, Buckwheat, Sun- flower Seed, not over 3% Grit and 3% Shells.....	Ingredients as guaranteed.
134	BYRNES CO., W. J., CHICAGO, ILL. Royal Poultry Feed.....	1913 Claimed Found	10.00 12.10	3.00 3.20	5.00 2.65	Cracked Wheat, Cracked Corn, Cracked Kaffir Corn, Cracked Peas, Oats, Millets, not over 6% Grit.....	Ingredients as guaranteed.
135	Daisy Chick Feed.....	Claimed Found					

247	CANTON FEED & MILLING CO., THE, CANTON, OHIO.	1913 Claimed Pound	38.00 39.80	7.00 7.40	10.50 10.80	Cotton Seed Meal	Ingredients as guaranteed.
348		Claimed Pound	7.00 6.70	2.00 2.55	9.00 13.65	Bar and Shelled Corn, Light Oats, Oat Groats	Ingredients as guaranteed.
349		Claimed Pound	10.00 8.00	3.50 2.75	6.00 11.20	Bar and Shelled Corn, Light Oats, Oat Groats and Pure Barley	Ingredients as guaranteed.
350		Claimed Pound	7.00 5.50	3.00 1.35	9.00 17.00	Bar and Shelled Corn, Light Oats, Oat Groats and Pure Barley	Ingredients as guaranteed.
351		Claimed Pound	6.00 11.00	3.00 2.60	8.00 3.00	Corn, Wheat, Kaffir, Barley, Buck- wheat, Sunflower, Charcoal, Maize.	Ingredients as guaranteed.
352		Claimed Pound	10.00 9.28	4.00 3.40	7.50 2.60	Corn, Oats, Molasses	Ingredients as guaranteed.
353		Claimed Pound	8.00 6.20	3.50 2.20	7.00 14.65	Bar and Shelled Corn, Light Oats, Oat Middlings	Ingredients as guaranteed.
182	CARUTHERSVILLE COTTON OIL CO., NATIONAL STOCK YARDS, ILL.	1913 Claimed Pound	41.00 42.50	7.00 8.00	10.00 7.85	From Cotton Seed	Ingredients as guaranteed.
178	CHAMPION MFG. CO., BARTO, PA.	1913 Claimed Pound	12.00 12.70	2.00 4.10	2.00 0.90	Dried Bone Meal, Dried Beef and Bone, Baked and Klin Dried Rolled Wheat, Calcite, Cracked Wheat, Hominy, Sulphur, Feusgreek, Gin- ger	Ingredients as guaranteed.
7	CHAPIN AND CO., HAMMOND, IND.	1913 Claimed Pound	26.00 25.60	5.50 6.15	10.00 9.70	Ajax Flakes, Corn Distillers' Grains, Cotton Seed Meal, Hominy Meal, Gluten Feed, Barley Feed, Linsed Meal, Malt Sprouts, Wheat Bran, Brewer's Grains	Ingredients as guaranteed.
201		Claimed Pound	30.00 29.45	11.00 11.15	14.00 11.25	Corn Distillers' Grains	Ingredients as guaranteed.
271	Green Diamond Brand Hominy Meal CITY HAY & GRAIN CO., ZANESVILLE, OHIO.	Claimed Pound	10.00 11.70	7.00 5.60	5.00 4.10	From Corn	Ingredients as guaranteed.
242	Chop Feed	1913 Claimed Pound	10.00 11.25	2.00 4.05	8.00 7.60	Corn, Oats and Corn Siftings	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.			
206	CITY MILLS, LORAIN, OHIO. Superior Scratch Feed	1913 Claimed Found	8.00 11.50	3.00 3.20	3.90 3.50	Wheat, Corn, Oats, Kaffir Corn, Buckwheat, Sunflower Seed and Charcoal				Ingredients as guaranteed.
456	CLARKE BROS. & CO., PEORIA, ILL. Empire State Dairy Feed	1913 Claimed Found	30.00 33.55	12.00 8.80	12.00 11.35	Distillers' Dried Grains				Ingredients as guaranteed.
45	CLEVELAND MILLING CO., THE, CLEVELAND, OHIO. Hominy Feed	1913 Claimed Found	10.00 11.00	6.00 7.75	12.00 3.55	From Pure Corn				Ingredients as guaranteed.
48	No. 2 Chop Feed	Claimed Found	7.90 9.90	3.00 5.90	14.00 5.90	Corn, Corn Product, Oat Hulls				Ingredients as guaranteed.
10	CLEVELAND PROVISION CO., THE, CLEVELAND, OHIO. Premium Digester Tankage	1913 Claimed Found	60.00 56.20	10.00 10.55	2.00 2.10	Packing House Meat Product				Ingredients as guaranteed.
432	Premium Meat Scraps	Claimed Found	50.00 53.60	7.00 9.15	2.00 2.15	Meat Scraps				Ingredients as guaranteed.
433	Premium Bone Grits	Claimed Found	25.00 28.05	0.45		Bone Grits				Ingredients as guaranteed.
109	CLEVELAND & SANDUSKY BREWING CO., THE, SANDUSKY, OHIO. "Malt Culms"	1913 Claimed Found	25.34 26.95	0.97 1.45	23.06 12.55	Malt Sprouts from Barley				Ingredients as guaranteed.
121	"Dried Grains"	Claimed Found	20.89 20.95	5.06 6.15	15.85 11.70	Ground Barley Dried				Distillery By-product.

304	CLOUGH & CO., O. H., MECHANICSBURG, OHIO.	1913 Claimed Found	10.50 11.50	3.55 4.40	6.45 6.30	Bran, Middlings, Alfalfa Meal, Oil Meal, Corn Meal, Ground Oats, Salt.....	Ingredients as guaranteed.
325	O. H. C. Scratching Feed	Claimed Found	10.50 11.25	2.60 3.05	2.55 2.85	Wheat, Buckwheat, Corn, Oats, Sun- flower Seed, Kafir Corn, Oil Cake.....	Ingredients as guaranteed.
347	O. H. C. Chick Feed	Claimed Found	10.50 10.20	2.45 3.20	1.84 1.90	Wheat, Corn, Kafir Corn, Millet, Charcoal.....	Ingredients as guaranteed.
14	CONKEY & CO., THE O. E., CLEVELAND, OHIO.	1913 Claimed Found	12.00 17.00	4.00 4.35	4.00 2.35	Wheat, Wheat Middlings, Hulled Oats, Meat, Bone, Salt, Sulphur, Iron Sulphate, Gentian Root, Mus- tard Seed, Bone Ash, Corn.....	Ingredients as guaranteed.
104	CONTINENTAL CEREAL CO., PEORIA, ILL.	1913 Claimed Found	29.00 28.05	12.50 9.25	10.50 8.20	A distillery By-product from Corn, Rye, Oats, Barley.....	Ingredients as guaranteed.
125	COOK & CO., D. S., BASIL, OHIO.	Claimed Found	10.06 10.25	4.04 3.90	8.50 3.30	Shelled Corn, Oat Screenings, Meal Offal.....	Ingredients as guaranteed.
391	COOK, HENRY, CLEVELAND, OHIO.	1913 Claimed Found	7.00 10.15	2.50 2.45	9.00 3.40	Cracked Corn, Wheat, Barley, Buck- wheat, Sunflower, Charcoal, Shells, Oats.....	Ingredients as guaranteed.
203	COOLVILLE MILL COMPANY, THE, COOLVILLE, OHIO.	1913 Claimed Found	10.50 10.05	3.50 3.30	5.00 3.25	Corn Meal, Wheat Bran and other whole grains ground.....	Ingredients as guaranteed.
2	CORN PRODUCTS REFINING CO., NEW YORK, N. Y.	1913 Claimed Found	18.00 16.20	6.50 7.20	13.00 11.95	Corn Oil Cake Meal and Sterilized Bone.....	Ingredients as guaranteed.
13	Buffalo Gluten Feed	Claimed Found	23.00 27.90	2.00 2.10	8.50 6.10	A By-product of Corn Starch and Glu- cose with Bran.....	Ingredients as guaranteed.
97	Diamond Gluten Meal	Claimed Found	40.00 44.15	1.50 2.45	4.00 2.05	A By-product of Corn Starch and Glucose without Bran.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.	
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.			
CYPHERS INCUBATOR CO., BUFFALO, N. Y.											
396	Chick Food.....	1913 Claimed Found	10.00 11.75	3.00 2.80	3.20 1.40	Corn, Wheat, Millet, Kaffir Corn, Oats					Ingredients as guaranteed.
397	Pattening Mash.....	Claimed Found	11.00 11.70	3.00 2.05	5.00 2.65	Kaffir Meal, Wheat Bran, Red Dog, Wheat Shorts, Corn Meal, Alfalfa Meal					Ingredients as guaranteed.
398	Growing Mash.....	Claimed Found	10.00 15.20	3.00 2.15	10.00 3.50	Ground Oats, Corn Meal, Wheat Mid- dlings, Alfalfa Meal, Bone and Meat Meal					Ingredients as guaranteed.
399	Laying Mash.....	Claimed Found	15.00 14.65	3.00 2.55	6.00 3.00	Kaffir Meal, Wheat Bran, Red Dog, Wheat Shorts, Corn Meal, Alfalfa Meal, Blood Meal					Ingredients as guaranteed.
400	Fertile Egg Mash.....	Claimed Found	10.00 11.95	3.00 2.05	12.00 4.80	Wheat Bran, Wheat Middlings, Alfalfa Meal, Ground Oats, Corn Meal					Ingredients as guaranteed.
DARLING & CO., CHICAGO, ILL.											
5	Darling's Chick Feed.....	1913 Claimed Found	10.00 12.00	2.50 3.60	5.00 3.10	Corn, Wheat, Kaffir Corn, Millet, Mica Grit, Oyster Shell					Contains Mustard Seeds.
160	Darling's Scratching Food.....	Claimed Found	10.00 11.55	2.50 3.00	5.00 2.90	Corn, Wheat, Mica Grit, Oyster Shell, Barley, Oats, Buckwheat, Sun- flower Seed, Kaffir Corn					Ingredients as guaranteed.
328	Darling's High Protein Meat Scraps.....	Claimed Found	55.00 54.95	0.50 8.55	2.00	Meat Scraps					Ingredients as guaranteed.
330	Darling's 60% Protein Digester Tankage.....	Claimed Found	60.00 61.25	0.50 1.60	1.90	Digester Tankage					Ingredients as guaranteed.
335	Darling's Standard Meat Scraps.....	Claimed Found	45.00 44.70	0.50 5.10	5.40	Meat Product					Ingredients as guaranteed.

359	Darling's 40% Protein Digester Tankage.....	Claimed Pound	40.00 42.50	0.50 1.35	Digester Tankage.....	Ingredients as guaranteed.
437	Darling's Blood Meal.....	Claimed Pound	80.00 85.20	1.00 2.00	Blood Meal.....	Ingredients as guaranteed.
103	DAVIS, S. P., LITTLE ROCK, ARK. Good Luck Brand Cotton Seed Meal Cracked Screened Cake.....	1913 Claimed Pound	41.00 46.10	7.00 8.45	Decorticated Cotton Seed.....	Ingredients as guaranteed.
124	DAYTON GRAIN & HAY CO., DAYTON, OHIO. Mak-Em-Lay Scratch.....	1913 Claimed Pound	12.00 10.95	3.50 3.35	Cracked Corn, Wheat, Kafir Corn, Oats, Sunflower Seed.....	Ingredients as guaranteed.
158	Alfalfa Chop Feed.....	Claimed Pound	10.00 9.90	5.00 2.80	Ground Corn, Corn Bran, Ground Oats, Oat Feed, Screenings, Bran, Alfalfa Meal.....	Ingredients as guaranteed.
209	Mak-Em-Grow Chick.....	Claimed Pound	10.00 11.90	2.50 3.15	Cracked Corn, Cracked Wheat, Cracked Kafir Corn, Small Oats, Millet.....	Ingredients as guaranteed.
338	DECKER PACKING CO., THE VAL, PIQUA, OHIO. "Our Pride".....	1913 Claimed Pound	29.05 26.30	15.25 8.10	Slaughter House Offal.....	Ingredients as guaranteed.
39	DEUTSCH & SICKERT CO., MILWAUKEE, WIS. Climax Distillers' Grains.....	1913 Claimed Pound	30.00 32.95	10.00 12.95	Distillers' Grains.....	Ingredients as guaranteed.
40	DEWEY BROS. CO., THE, BLANCHESTER, OHIO. Eagle 3-D Grains.....	1913 Claimed Pound	30.00 27.25	10.00 12.25	Dried Distillers' Grains.....	Ingredients as guaranteed.
41	Queen Cotton Seed Meal.....	Claimed Pound	41.30 41.30	7.00 6.90	Cotton Seed Meal.....	Ingredients as guaranteed.
123	Corn 3-D Grains.....	Claimed Pound	26.00 26.20	9.00 10.85	Dried Distillers' Grains.....	Ingredients as guaranteed.
130	Buckeye Gluten Feed.....	Claimed Pound	20.00 21.45	5.00 3.35	Dried Distillers' Grains.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		
	DEWINE CO., THE JOHN, YELLOW SPRINGS, OHIO.	1913								
82	Dewine's Chick Feed.....	Claimed Found.....	10.85 10.55	3.15 3.30			3.75 2.65		Cracked Corn, Millet, Wheat, Kaffir Corn.....	Ingredients as guaranteed.
83	Dewine's Laying Feed.....	Claimed Found.....	11.38 10.30	3.37 3.15			3.08 1.75		Cracked Corn, Wheat, Rye, Peas, Sunflower, Oats, Buckwheat and Kaffir Corn.....	Ingredients as guaranteed.
404	Shamrock Scratch Feed.....	Claimed Found.....	11.17 10.50	3.08 2.55			2.46 1.95		Cracked Corn, Kaffir Corn, Wheat, Rye, Barley, Sunflower Seed.....	Ingredients as guaranteed.
428	Devine's Chop Feed.....	Claimed Found.....	10.00 11.45	4.00 1.70			7.00 5.20		Corn, Oats, Corn Hearts, Corn Bran.	Ingredients as guaranteed.
442	Dewine's Forcing Mash.....	Claimed Found.....	18.47 13.15	2.39 2.75			4.60 5.50		Corn Hearts, Alfalfa Meal, Middlings, Bran, Salt Ash, Meat Meal.....	Ingredients as guaranteed.
	DICKINSON COMPANY, THE ALBERT, CHICAGO, ILL.	1913								
23	Globe Scratch Feed—with Grit.....	Claimed Found.....	10.00 11.25	2.50 3.10			5.00 2.15		Corn, Wheat, Rye, Barley, Oats, Kaffir Corn, Buckwheat, Sunflower, Oil Cake, Crushed Shells and Grit.....	Ingredients as guaranteed.
116	Alfalfa Meal.....	Claimed Found.....	12.00 15.25	1.00 2.20			35.00 26.65		Alfalfa Hay.....	Ingredients as guaranteed.
167	Colonial Developing Feed—with Grit.....	Claimed Found.....	10.00 12.25	2.50 3.35			5.00 2.20		Corn, Wheat, Kaffir Corn, Hulled Oats, Buckwheat, Millet and Grit.....	Ingredients as guaranteed.
168	Queen Poultry Mash.....	Claimed Found.....	11.00 12.65	2.50 3.65			10.00 5.95		Alfalfa Meal, Corn Feed Meal, Wheat Meal, Ground Corn Bran, Wheat Bran, Meat Scraps, Oil Cake, $\frac{1}{2}\%$ Salt.....	Ingredients as guaranteed.
170	Crescent Chick Feed—with Grit.....	Claimed Found.....	10.00 10.50	2.50 3.15			5.00 2.25		Corn, Wheat, Kaffir Corn, Hulled Oats, Millet, Grit.....	Ingredients as guaranteed.

224	White Cross Stock Feed.....	Claimed Found	10.00 10.50	3.50 3.60	10.00 4.25	Ground Oats, Ground Barley, Corn Feed Meal, Wheat Meal, Corn Bran, Cotton Seed Meal, 1% Salt.....	Ingredients as guaranteed.
256	Sun Chick Starter—with Grit.....	Claimed Found	10.00 10.95	2.50 3.05	5.00 2.05	Corn, Wheat, Kafir Corn, Steel Cut Oats, Millet, Cracked Peas, Grit....	Ingredients as guaranteed.
257	White Cross Scratch Feed—with Grit.....	Claimed Found	10.00 10.35	2.50 3.10	5.00 2.50	Corn, Wheat, Rye, Barley, Oats, Kaf- fir Corn, Sunflower, Buckwheat, Crushed Shells and Grit.....	Ingredients as guaranteed.
258	Globe Egg Mash.....	Claimed Found	16.00 18.55	3.00 4.65	10.00 6.95	Wheat Bran, Wheat Middlings, Alfal- fa Meal, Corn Bran, Corn Feed Meal, Linseed Oil Cake, Meat Scraps, Salt 1/4 of 1%.....	Ingredients as guaranteed.
274	White Cross Chick Feed—with Grit.....	Claimed Found	10.00 9.85	2.50 2.50	5.00 2.10	Corn, Wheat, Kafir Corn, Millet, Grit.....	Ingredients as guaranteed.
342	White Cross Horse Feed.....	Claimed Found	10.00 9.45	2.50 3.65	8.00 3.40	Crushed Oats and Cracked Corn.....	Ingredients as guaranteed.
358	Pine Tree Chick Feed—with Grit.....	Claimed Found	10.00 10.05	2.50 1.90	5.00 1.90	Corn, Wheat, Kafir Corn, Millet, Grit.....	Ingredients as guaranteed.
367	Pine Tree Scratch Feed—No Grit.....	Claimed Found	10.00 11.45	2.50 2.50	5.00 2.30	Corn, Wheat, Rye, Oats, Barley, Kaf- fir Corn, Sunflower, Buckwheat.....	Ingredients as guaranteed.
375	King Pigeon Feed—with Grit.....	Claimed Found	10.00 12.35	2.50 2.90	5.00 2.65	Corn, Wheat, Buckwheat, Kafir Corn Peas, Millet, Hemp and Grit.....	Ingredients as guaranteed.
412	Globe Scratch Feed—No Grit.....	Claimed Found	10.00 11.70	2.50 2.35	5.00 2.75	Corn, Wheat, Rye, Barley, Oats, Kaf- fir Corn, Buckwheat, Sunflower, Oil Cake.....	Ingredients as guaranteed.
420	Crescent Chick Feed—No Grit.....	Claimed Found	10.00 11.40	2.50 3.45	5.00 2.25	Corn, Wheat, Kafir Corn, Rolled Oats, Millet.....	Ingredients as guaranteed.
438	Pine Tree Scratch Feed—with Grit.....	Claimed Found	10.00 10.85	2.50 2.90	5.00 1.95	Corn, Wheat, Rye, Oats, Barley, Kaf- fir Corn, Sunflower, Buckwheat, Crushed Shells and Grit.....	Ingredients as guaranteed.
439	White Cross Scratch Feed—No Grit.....	Claimed Found	10.00 11.90	2.50 1.75	5.00 2.85	Corn, Wheat, Rye, Oats, Barley, Kaf- fir Corn, Sunflower, Buckwheat.....	Ingredients as guaranteed.
443	King Pigeon Feed—No Grit.....	Claimed Found	10.00 13.20	2.50 2.80	5.00 2.85	Corn, Wheat, Buckwheat, Kafir Corn, Peas, Millet, Hemp.....	Ingredients as guaranteed.
444	Colonial Developing Feed—No Grit.....	Claimed Found	10.00 11.25	2.50 1.95	5.00 2.25	Corn, Wheat, Kafir Corn, Hulled Oats, Millet, Buckwheat.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		
206	DIXIE MILLS COMPANY, EAST ST. LOUIS, ILL.	1913 Claimed Found	12.00 9.45	4.00 1.75	9.00 10.25	Ground Alfalfa, Corn, Oats, Cotton Seed Meal, Molasses				Ingredients as guaranteed.
111	DOUGLAS & CO., CEDAR RAPIDS, IA.	1913 Claimed Found	20.00 18.80	2.00 3.75	8.00 7.20	Corn Starch By-Product with Corn Bran				Ingredients as guaranteed.
28	EARLY & DANIEL CO., THE., CINCINNATI, OHIO.	1913 Claimed Found	20.00 23.00	5.00 5.20	7.50 6.06	Alfalfa Leaf, Wheat, Oil Meal, Corn Meal, Wheat Bran, Wheat Middlings, Ground Wheat, Oat Meal, (No Hulls), Beef Scrap				Ingredients as guaranteed.
65	Ce-re-a-lia Egg Mash	Claimed Found	10.00 11.85	2.50 3.65	5.00 2.55	Corn, Wheat, Oats, Kafir Corn, Millet				Ingredients as guaranteed.
240	Tuxedo Chop	Claimed Found	12.50 13.10	4.00 3.95	10.00 9.95	Corn, Alfalfa Meal, Oats, Brewers' Grains and Molasses				Ingredients as guaranteed.
286	Ce-re-a-lia Scratch	Claimed Found	11.50 10.70	2.50 3.00	4.00 2.50	Cracked Corn, Wheat, Clipped Oats, Buckwheat, Kafir Corn, Sunflower Seed, Oil Cake Meal, Barley				Ingredients as guaranteed.
290	Sweet Coated Cerealia	Claimed Found	12.50 13.05	4.00 1.50	10.00 8.60	Oats, Bran, Brewers' Grains, Molasses				Ingredients as guaranteed.
303	Tuxedo Scratch—No Grit	Claimed Found	10.00 10.30	2.50 3.15	5.00 2.55	Ground Corn, Wheat, Oats, Sunflower Seed, Barley, Buckwheat, Kafir Corn				Ingredients as guaranteed.
323	Alfalfa Ce-re-a-lia	Claimed Found	23.00 26.00	5.08 5.20	10.00 12.65	Alfalfa Meal, Oil Meal, Cotton Seed Meal, Corn, Wheat Bran, Middlings, Distillers' Dried Grains, Malt Sprouts				Ingredients as guaranteed.

338	Radian Scratch.....	Claimed Pound	10.00 10.70	2.50 2.90	5.00 2.70	Cracked Corn, Wheat, Oats, Buck- wheat, Kafir Corn, Sunflower Seed, Rye, Barley.....	Ingredients as guaranteed.
440	Ce-re-a-lia Chop.....	Claimed Pound	12.50 15.05	4.25 3.00	10.00 13.05	Choice White Oats, Choice Yellow Corn, Colorado Alfalfa Meal, O. P. Linseed Meal, Pure Wheat Bran.....	Ingredients as guaranteed.
405	EAST ST. LOUIS COTTON OIL CO., NATIONAL STOCK YARDS, ILL. Cotton Seed Meal.....	1913 Claimed Pound	41.00 44.75	7.00 9.70	10.00 6.00	Cottonseed Meal.....	Ingredients as guaranteed.
355	ECKHART MILLING CO., B. A., CHICAGO, ILL., Bran and Screenings.....	1913 Claimed Pound	14.00 16.20	4.00 4.45	11.00 8.20	Wheat and Screenings.....	Ingredients as guaranteed.
406	Middlings and Cleanings.....	Claimed Pound	14.00 17.25	4.00 4.15	7.00 6.00	Middlings and Cleanings.....	Ingredients as guaranteed.
213	EDWARDS & LOOMIS CO., CHICAGO, ILL. Pioneer Horse and Cattle Feed.....	1913 Claimed Pound	7.50 8.75	2.50 2.60	8.00 7.20	Corn Feed Meal, Light Oats, Oat Hulls.....	Ingredients as guaranteed.
255	Red Comb Coarse Chick With Grit.....	Claimed Pound	10.00 10.35	2.50 3.75	5.00 3.70	Wheat, Cracked Corn, Kafir Corn, Millet Seed, Hulled Oats, not over 6% Grit, 1% Charcoal.....	Ingredients as guaranteed.
276	Cackle Poultry Feed With Grit.....	Claimed Pound	9.50 11.05	2.50 3.75	5.00 2.70	Wheat, Cracked Corn, Kafir Corn, Barley, Oats, Sunflower, not over 4% Grit, 4% Shell, 1% Charcoal.....	Ingredients as guaranteed.
277	Red Comb Meat Mash.....	Claimed Pound	15.00 17.05	4.00 3.75	8.00 7.30	Oat Meal, Oil Meal, Corn Meal, Beef Scraps, Wheat Bran, Wheat Mid- dlings, Alfalfa Meal, not over 5% Shell, 1% Charcoal.....	Ingredients as guaranteed.
285	Greeno (Horse and Cattle) Feed.....	Claimed Pound	10.00 11.90	0.50 0.50	28.00 16.95	Alfalfa, Molasses.....	Ingredients as guaranteed.
296	Glen Oak Dairy Feed.....	Claimed Pound	15.00 15.75	3.50 3.50	9.00 6.15	Alfalfa Meal, Wheat Bran, Linseed Meal, Corn Feed Meal, Gluten Meal, Cotton Seed Meal.....	Ingredients as guaranteed.
323	Red Comb Poultry Feed With Grit.....	Claimed Pound	10.00 10.35	2.50 2.50	5.00 3.00	Wheat, Ground Corn, Kafir Corn, Barley, Oats, Sunflower Seed, Buckwheat, not over 3% Grit, 3% Shell, 1% Charcoal.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.	
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.			
EDWARDS & LOOMIS CO.; CHICAGO, ILL.—Concluded.											
354	Harvest Horse Feed.....	1913 Claimed Found	9.00 11.70	2.00 1.40	15.00 20.05	Alfalfa, Molasses, Ground Corn, Oats.					Ingredients as guaranteed.
356	Excelsior Horse Feed.....	Claimed Found	10.00 10.65	3.00 4.00	8.00 4.85	Rolled Oats, Sifted Ground Corn and Rolled Barley.....					Ingredients as guaranteed.
401	Cackle Poultry Feed—no Grit.....	Claimed Found	9.50 11.25	2.50 3.05	5.00 2.45	Wheat, Ground Corn, Kafir Corn, Barley, Oats, Sunflower Seed, not over 1% Charcoal.....					Ingredients as guaranteed.
402	Red Comb Alfalfa Meal.....	Claimed Found	13.50 18.40	1.00 1.85	30.00 23.65	Alfalfa Meal.....					Ingredients as guaranteed.
435	Red Comb Coarse Chick Feed—no Grit.....	Claimed Found	10.25 12.05	2.50 2.55	5.00 2.35	Wheat, Cracked Corn, Kafir Corn, Millet Seed, Hulled Oats, not over 1% Charcoal.....					Ingredients as guaranteed.
452	Red Comb Fine Chick—with Grit.....	Claimed Found	10.00 11.20	2.50 2.95	5.00 2.35	Cracked Wheat, Cracked Corn, Cracked Kafir Corn, Millet Seed, Steel Cut Oats, not over 6% Grit, 1% Charcoal.....					Ingredients as guaranteed.
453	Red Comb Pigeon Feed With Grit.....	Claimed Found	10.00 12.65	2.50 2.80	5.00 4.35	Wheat, Cracked Corn, Hemp Seed, Peas, Kafir Corn, Millet Seed, Buckwheat, not over 5% Grit, 1% Charcoal.....					Ingredients as guaranteed.
ELYRIA MILLING & POWER CO., THE, ELYRIA, OHIO.											
1114	Boss Scratch Feed.....	1913 Claimed Found	7.00 11.40	2.00 2.30	12.00 2.10	Wheat, Cracked Corn, Sunflower, Buckwheat, Kafir Corn, Screenings					Ingredients as guaranteed.
EMMERT CO., THE F. L., CINCINNATI, OHIO.											
313	Brewers' Dried Grains.....	1913 Claimed Found	26.02 28.00	6.28 7.35	15.29 11.60	Dried Grains (Barley).....					Ingredients as guaranteed.

85	EVANS MILLING COMPANY, INDIANAPOLIS, IND.	1913 Claimed Found	10.00 10.80	7.50 14.90	7.00 4.15	From Corn.....	Ingredients as guaranteed.
187	FAULK BROS. CO., THE, EAST LIVERPOOL, OHIO.	1913 Claimed Found	10.00 11.50	3.00 3.40	5.00 3.35	Cracked Corn, Wheat, Barley, Kafir Corn, Buckwheat, Sunflower Seed.	Ingredients as guaranteed.
327	FEED PRODUCTS MILLING CO., CHICAGO, ILL.	1913 Claimed Found	9.50 11.10	2.00 2.76	4.00 2.80	Cracked Corn, Kafir Corn, Cracked Wheat, Millet Seed.	Ingredients as guaranteed.
383	Estall Poultry Feed.....	1913 Claimed Found	10.00 11.50	2.50 2.60	5.00 2.00	Wheat, Corn, Kafir Corn, Barley, Oats, Buckwheat, Sunflower, Char- coal, Oyster Shells, Mica Grit.	Ingredients as guaranteed.
388	Estall Horse Feed.....	1913 Claimed Found	9.00 13.70	2.00 0.50	15.00 17.65	Alfalfa Meal, Ground Corn, Oats, Molasses.	Ingredients as guaranteed.
384	Estall Meadow Feed.....	1913 Claimed Found	10.00 12.70	5.00 0.45	26.00 17.60	Alfalfa, Molasses.	Ingredients as guaranteed.
70	FERGER GRAIN CO., THE, CINCINNATI, OHIO.	1913 Claimed Found	12.00 10.55	4.00 2.45	10.00 5.25	Oats, Cracked Corn, Wheat Bran, Alfalfa Meal, Cotton Seed Meal, Molasses.	Ingredients as guaranteed.
293	Columbia Scratch Grains.....	1913 Claimed Found	11.00 11.10	3.00 4.45	4.00 5.40	Wheat, Cracked Corn, Oats, Barley, Kafir Corn, Sunflower Seed, Buck- wheat.	Ingredients as guaranteed.
77	FLEISCHMANN MALTING CO., THE, CINCINNATI, OHIO.	1913 Claimed Found	26.25 24.80	2.02 2.80	12.57 12.00	From Barley.....	Malt Sprouts.
377	FOLSOM, E. M., CLEVELAND, OHIO.	1913 Claimed Found	9.19 9.85	3.91 4.00	3.29 3.60	Corn, Oats and Molasses.	Ingredients as guaranteed.
378	Folsom's Feed for Horses and Cattle.....	1913 Claimed Found	9.63 8.85	4.80 2.90	4.15 3.85	Corn and Oat Hulls.	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein	Crude Fat	Crude Fiber	Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.		
314	GAMBRINUS STOCK CO., CINCINNATI, OHIO. Malt Sprouts.	1913 Claimed Found	20.00 28.50	0.96 2.15	16.00 11.00	From Barley.....	A few weed seeds.
205	GANDY & CO., O. SOUTH WHITLEY, IND. Poultry Feed—Standard "A" Brand—Scratch Size.	1913 Claimed Found	10.00 10.50	2.50 3.45	2.50 2.10	Wheat, Corn, Kafir Corn, Barley, Millet, Buckwheat.....	Ingredients as guaranteed.
416	Poultry Feed—Standard "A" Brand—Chick Size.	Claimed Found	10.00 10.30	2.50 2.10	2.50 2.00	Wheat, Corn, Kafir Corn, Barley, Millet, Buckwheat.....	Ingredients as guaranteed.
108	GARDNER GRAIN & MILL CO., THE W. H., BELLEVUE, OHIO. Gardner's Hominy Feed.....	1913 Claimed Found	10.94 9.95	5.75 5.45	3.10 3.65	From Corn.....	Ingredients as guaranteed.
454	Gardner's Poultry Feed (Scratch Size).....	Claimed Found	10.31 11.35	3.60 3.15	2.75 3.00	Wheat, Kafir Corn, Barley, Sun- flower, Cracked Corn and Buck- wheat.....	Ingredients as guaranteed.
345	GARLAND MILLING CO., GREENSBURG, IND. Garland Mixed Meal.....	1913 Claimed Found	16.00 16.05	4.00 4.60	8.50 6.90	Wheat Bran, Wheat Middlings and Wheat Screenings.....	Ingredients as guaranteed.
198	GATES, ELEVATOR CO.; THE, CLEVELAND, OHIO. "Gates Quality" Scratch Feed.....	1913 Claimed Found	11.00 11.00	4.50 3.15	4.00 2.85	Wheat, Barley, Kafir Corn, Buck- wheat, Cracked Corn, Sunflower Seed.....	Ingredients as guaranteed.
199	"Gates Quality" Growing Feed.....	Claimed Found	11.50 11.40	4.00 2.95	4.00 2.25	Wheat, Oat Meal, Millet Seed, Cracked Corn and Kafir Corn.....	Ingredients as guaranteed.

272	"Gates Quality" Chick Feed.....	Claimed Found	11.50 10.35	4.00 3.30	4.00 2.15	Cracked Wheat, Millet Seed, Oat- meal, Cracked Corn, Kafir Corn.....	Ingredients as guaranteed.
	GEHRES BROS., PORTSMOUTH, OHIO.	1913					
90	Wheat and Corn Bran Mixed.....	Claimed Found	13.60 13.60	4.00 4.50	10.80 14.50	Wheat Bran, Corn Bran.....	Ingredients as guaranteed.
	GEIGER, CHAS., NEWARK, OHIO.	1913					
419	Regal Scratch Feed.....	Claimed Found	10.00 9.55	3.00 2.40	5.00 2.00	Wheat, Corn, Kafir, Oats, Rye, Bar- ley, Buckwheat, Sunflower Seed, Carbonate of Lime.....	Ingredients as guaranteed.
	GOLDCAMP MILL CO., THE, IRONTON, OHIO.	1913					
63	Mixed Feed.....	Claimed Found	13.78 15.00	4.23 6.45	7.55 6.50	Wheat, Corn, Wheat Screenings.....	Ingredients as guaranteed.
64	Bran.....	Claimed Found	13.78 13.15	4.00 4.10	10.00 10.65	Wheat Bran, Corn Bran.....	Ingredients as guaranteed.
	GOOD LUCK MILLS, ST. LOUIS, MO.	1913					
123	Good Luck Mill Feed (Scratch Size).....	Claimed Found	10.00 11.55	3.00 3.70	6.00 2.25	Wheat, Corn, Barley, Kafir or Milo Maize, Sunflower, Recleaned Wheat Screenings.....	Ingredients as guaranteed.
323	Good Luck Mill Feed (Chick Size).....	Claimed Found	10.00 10.10	3.00 2.90	6.00 2.85	Wheat, Corn, Millet, Kafir or Milo Maize, Recleaned Wheat Screenings	Ingredients as guaranteed.
	GRAHAM MILLING CO., LANCASTER, OHIO.	1913					
46	"Molana" Chop.....	Claimed Found	9.19 9.60	4.02 3.95	4.21 3.05	Corn, Oats, Corn Bran, Screenings.....	Ingredients as guaranteed.
	GRAY & SMITH, WOOSTER, OHIO.	1913					
331	Blue Label Scratch Feed.....	Claimed Found	9.00 10.00	3.00 2.85	7.00 4.00	Cracked Corn, Wheat, Oats, Barley, Kafir Corn, Buckwheat, Sunflower, Millet, Charcoal, Grit.....	Ingredients as guaranteed.
362	Blue Label Chick Feed.....	Claimed Found	10.00 8.75	3.50 1.95	7.00 1.70	Cracked Corn, Cracked Wheat, Cracked Kafir Corn, Millet, Char- coal, Grit.....	Ingredients as guaranteed.
	GWINN MILLING COMPANY, THE COLUMBUS, OHIO.	1913					
131	Gwinn's Chick Feed.....	Claimed Found	11.40 12.15	4.00 4.15	4.20 2.50	Cracked Corn and Wheat Screenings.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		
371	HAMLIN & CO., DWIGHT E., PITTSBURGH, PA. H & S. Alfalfa Feed.....	1913 Claimed Found	14.00	3.50	16.00	Alfalfa, Cane Syrup, (Distillers' and Brewers' Dried Grains).....	16.00 12.75	Ingredients as guaranteed.		
			17.55	3.85	12.75					
415	HANKS CO., THE HOWARD H., CHICAGO, ILL. Kingfalfa Horse Feed.....	1913 Claimed Found	9.00	2.00	15.00	Alfalfa Meal. Cracked Corn, Oats, Molasses.....	15.00 10.95	Ingredients as guaranteed.		
			13.00	2.10	10.95					
317	HANLEY MILLING CO., THE, COSHOCTON, OHIO. Coshoc Chic Feed.....	1913 Claimed Found	10.00	3.50	3.40	Wheat, Oats, Millet, Kaffir Corn, Buckwheat, Rye, Cracked Corn, Sunflower.....	3.40 3.45	Ingredients as guaranteed.		
			11.05	3.10	3.45					
245	HARDESTY-WILLIAMS MILLING CO., Corn and Oats Chop.....	1913 Claimed Found	8.00	3.75	8.00	Corn, Oats, Corn Bran.....	8.00 7.75	Ingredients as guaranteed.		
			10.75	3.75	7.75					
89	HARSHA, P. H., PORTSMOUTH, OHIO. Pearless Scratch Feed.....	1913 Claimed Found	11.00	3.00	4.00	Cracked Corn, Kaffir Corn, Wheat, Buckwheat, Oats and Sunflower Seed.....	4.00 3.20	Ingredients as guaranteed.		
			11.40	3.20	3.20					
67	HAUCK BREWING COMPANY, THE JOHN, CINCINNATI, OHIO. Malt Sprouts.....	1913 Claimed Found	24.00	2.00	13.00	From Barley.....	13.00 12.90	Ingredients as guaranteed.		
			26.06	1.60	12.90					

222	HENLETA BONE CO., FLEMINGTON, W. VA.	1913 Claimed Found	12.00 10.10	3.00 3.15	4.00 3.75	Corn Meal, Gluten Feed, Wheat Bran, Wheat Middlings, Oil Meal, (Heneca) Sodium Lime, Silica, Phosphate.....	Ingredients as guaranteed.
6	HENSON COTTON OIL MILLS, KANSAS CITY, MO.	1913 Claimed Found	41.00 38.00	6.00 5.95	10.00 12.85	From Cotton Seed.....	Ingredients as guaranteed.
180	HERENDEEN MILLING CO., CHAS., CHICAGO, ILL.	1913 Claimed Found	10.15 10.95	6.40 7.90	3.55 4.35	From White Corn.....	Ingredients as guaranteed.
308	HERTER & CO., VICTOR E., DAYTON, OHIO.	1913 Claimed Found	10.00 10.65	2.50 2.35	5.00 2.75	Cracked Corn, Wheat, Kaffir Corn, Barley, Oats, Buckwheat, Sun- flower Rye.....	Ingredients as guaranteed.
462	HILLS Co., THE V. T., DELAWARE, OHIO.	1913 Claimed Found	10.00 10.40	3.50 3.40	5.00 2.20	Wheat, Corn, Kaffir Corn, Milo Maize, Sunflower Seed.....	Ingredients as guaranteed.
424	HIRST AND BEGLEY LINSEED CO., CHICAGO, ILL.	1913 Claimed Found	34.00 34.00	8.00 6.55	9.00 7.75	Ground Linseed Meal.....	Ingredients as guaranteed.
183	HORNBY & SONS, J. H., NEW BRIGHTON, PA.	1913 Claimed Found	10.00 11.15	2.50 4.50	5.00 1.90	Whole Wheat, Whole Kaffir Corn, Whole Buckwheat, Cracked Indian Corn, Whole Barley, Whole Sun- flower Seed.....	Ingredients as guaranteed.
51	HOTTELET & CO., MILWAUKEE, WIS.	1913 Claimed Found	30.00 31.30	10.00 11.05	14.00 12.95	Distillers' Dried Grains.....	Ingredients as guaranteed.
223	"Hector" Distillers' Dried Grains.	Claimed Found	8.00 8.80	0.50 1.10	20.00 20.00	Residue of Sugar Beet Factory.....	Ingredients as guaranteed.
	Dried Beet Pulp.....						

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.	
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.			
363	HULSHIZER MILLING COMPANY, THE, NEWARK, OHIO. Chop Feed.....	1913 Claimed Found	9.00 10.30	5.00 3.00	10.00 3.00	Corn, Oats, Rye, Shorts, Corn Bran, Corn Meal, Wheat Screening					Ingredients as guaranteed.
176	HUMPHREYS-GODWIN CO., MEMPHIS, TENN. Dirie Brand—Cotton Seed Meal.....	1913 Claimed Found	38.62 40.55	6.00 7.65	12.00 8.75	Cotton Seed Meal.....					Ingredients as guaranteed.
430	Forfat Brand—Cotton Seed Meal.....	Claimed Found	38.62 38.55	6.00 6.25	12.00 11.25	Cotton Seed Meal.....					Ingredients as guaranteed.
188	HUTTON, ELIAS, FRANKFORT, OHIO. Fresh Ground Mill Feed.....	1913 Claimed Found	15.51 16.96	4.08 4.10	6.00 5.20	Bran, Middlings, Wheat Screenings, Chicken Wheat, Corn Bran, Corn Screenings.....					Ingredients as guaranteed.
144	IMMEL FEED & MILLING CO., THE, CANAL DOVER, OHIO. Purity Scratch Grains.....	1913 Claimed Found	10.85 10.75	4.01 3.65	3.05 2.55	Buckwheat, Sunflower, Kafir Corn, Oats, Wheat, Cracked Corn, Barley					Ingredients as guaranteed.
8	IMPERIAL COTTO MILLING CO., PEORIA, ILL. Imperial Cotto Bran and Cotton Seed Meal.....	1913 Claimed Found	41.00 43.30	8.00 8.25	9.00 6.40	Cotton Seed Meal.....					Ingredients as guaranteed.
462	IMPERIAL GRAIN & MILLING COM- PANY, THE, TOLEDO, OHIO. C. O. & B. Feed.....	1913 Claimed Found	8.90 8.10	3.70 3.05	1.95 10.85	Shelled and Ear Corn, Oats, Barley, Wheat Flour, Oat Hulls, Oat Shorts, Oat Middlings, Cotton Seed Meal, 1 % Salt.....					Excess of Corn Cob, little if any Cotton Seed Meal.

163	Regal Stock Feed.....	Claimed Found	8.00 8.90	3.50 3.45	13.00 10.00	Shelled and Ear Corn, Oat Middlings, Oat Shorts, Oat Hulls, Cotton Seed Meal, $\frac{1}{2}\%$ Salt.....	Excess of Corn Bob, Little if any Cotton Seed Meal.
300	Premium Chop..... INDEPENDENT HOMINY COMPANY, PORTSMOUTH, OHIO.	Claimed Found	8.00 7.95	3.50 3.25	13.00 10.45	Shelled or Ear Corn, Cotton Seed Meal, White Hominy Meal, Oat Middlings, Oat Hulls, Oat Shorts, Salt $\frac{1}{2}$ of 1%.....	Ingredients as guaranteed.
93	"In-Ho-Co" Hominy Feed..... INDIANA MILLING COMPANY, TERRE HAUTE, IND.	1913 Claimed Found	10.85 10.80	8.23 8.40	7.20 3.60	Offal of White Corn.....	Ingredients as guaranteed.
129	Sterling Feed.....	Claimed Found	9.80 10.30	2.75 3.30	14.00 16.00	Wheat Bran, Corn Bran, Cob Meal.....	Ingredients as guaranteed.
312	Holstein No. 2..... INDIANA SEED CO., THE, INDIANAPOLIS, IND.	Claimed Found	12.00 10.25	3.00 3.40	10.00 18.75	Wheat Bran, Cob Meal.....	Ingredients as guaranteed.
289	Monument Brand Chick Feed.....	1913 Claimed Found	10.50 10.55	3.00 3.20	7.00 3.15	Wheat, Corn, Kafir, Millet, Flax, Charcoal, Screenings from Wheat, Corn, Oats and Barley.....	Ingredients as guaranteed.
319	Monument Brand Scratch Feed.....	Claimed Found	10.50 10.25	3.00 3.25	7.00 2.30	Wheat, Corn, Kafir Corn, Oats, Bar- ley, Cane, Sunflower Seed, Oil Cake, Screenings from Wheat, Corn, Oats and Barley.....	Ingredients as guaranteed.
80	International Special Dairy Feed..... INTERNATIONAL SUGAR FEED CO., MINNEAPOLIS, MINN.	1913 Claimed Found	15.00 16.75	3.50 5.75	12.00 14.30	Cotton Seed Meal, Molasses, Ground Cleaned Grain Screenings, Ground Clipped Oat By-product, Salt.....	Ingredients as guaranteed.
282	International Hog Feed and Charcoal.....	Claimed Found	22.50 22.55	3.50 5.75	12.00 17.25	Old Process Oil Meal, Tanbark, Mo- lasses, Cleaned Grain Screenings, Clipped By-products, Charcoal, Salt.....	Ingredients as guaranteed.
283	International Horse Feed.....	Claimed Found	12.50 14.55	3.50 3.70	12.00 10.80	Oats, Barley, Corn, Alfalfa, Oil Meal, Cotton Seed Meal, Cleaned Grain Screenings, Clipped Oat By- Products, Molasses, Salt.....	Ingredients as guaranteed.
428	International Climax Feed.....	Claimed Found	12.50 14.95	3.50 5.00	12.00 13.60	Cotton Seed Meal, Molasses, Ground Cleaned Grain Screenings, Ground Clipped Oat By-product, Salt.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuffa.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		
127	JACOBS, LOFF, POMEROY, OHIO. Chop Feed.....	1913 Claimed Pound	10.06 9.95	3.77 3.10		2.92 3.65		Shelled Corn, Oats, Wheat Screenings, Corn Bran.....	Ingredients as guaranteed.	
193	JENKINS AND CO., F. A., NORWALK, OHIO. Dry Mash.....	1913 Claimed Pound	9.00 22.80	3.00 4.95		10.00 7.95		Bran, Gluten, Middlings, Corn Meal, Alfalfa. (Beef Scraps).....	Ingredients as guaranteed.	
149	JOHNSON, L. H., SPRINGFIELD, OHIO. Johnson's Scratch Feed	1913 Claimed Pound	10.94 12.00	3.23 3.55		7.05 2.30		Corn, Wheat, Barley, Kaffir, Peas, Oats, Sunflower, Buckwheat, Charcoal.....	Ingredients as guaranteed.	
150	Johnson's Chick Feed.....	Claimed Pound	11.00 10.95	3.50 4.25		7.00 3.75		Cracked Corn, Millet, Cut Oats, Charcoal.....	Ingredients as guaranteed.	
305	"Big Jack" Mule and Horse Feed.....	Claimed Pound	9.00 10.70	3.25 2.80		14.00 7.25		Molasses, Alfalfa, Oats, Corn, Corn Bran, Corn Siftings.....	Ingredients as guaranteed.	
321	Johnson's Mash Feed	Claimed Pound	20.30 22.20	5.00 5.40		12.00 10.75		Distillers' Grains, Wheat Bran, Middlings, Corn, Charcoal, Alfalfa Meal, Beef Scraps, Linseed Meal, Gluten Meal.....	Ingredients as guaranteed.	
418	JONES ROLLER MILLS, NEWARK, O. Corn & Wheat Bran Mixed.....	1913 Claimed Pound	14.00 14.65	4.50 5.85		9.50 8.55		Corn Bran and Wheat Bran.....	Ingredients as guaranteed.	
298	JORDON, A. M., CLEVELAND, OHIO. W. & J. Alfalfa Stock Food.....	1913 Claimed Pound	10.15 16.65	4.00 1.95		12.00 11.95		Alfalfa Meal, Corn, Molasses, Salt.....	Ingredients as guaranteed.	

99	KEEVER STARCH COMPANY, THE, COLUMBUS, OHIO.	1913 Claimed Pound	22.00 20.70	4.50 5.30	7.00 6.85	From Corn.....	Excess of Weed Seeds.
196	KELLY CO., THE, CLEVELAND, OHIO.	1913 Claimed Pound	9.00 13.45	2.50 5.15	10.00 5.05	Corn, Millet, Flax, Grain and Seed Screenings.....	Ingredients as guaranteed.
197	Mixed Grains and Seeds for Little Chicks.....	1913 Claimed Pound	9.00 13.00	2.50 4.25	10.00 4.60	Corn, Grain and Seed Screenings, Sunflower Seed.....	Ingredients as guaranteed.
36	KEYNES BROS., LOGAN, OHIO.	1913 Claimed Pound	14.00 14.90	4.00 4.80	10.00 8.80	Wheat Bran and Corn Bran.....	Ingredients as guaranteed.
59	Chop.....	1913 Claimed Pound	10.75 11.15	4.50 4.65	4.50 4.90	Corn, Oat Screenings.....	Ingredients as guaranteed.
147	KINDELL AND COMPANY, J. B., COVINGTON, OHIO.	1913 Claimed Pound	9.00 10.95	3.00 3.30	6.00 1.75	Buckwheat Screenings, Grit, Cracked Corn, Kafir Corn, Wheat, Barley, Oats, Sunflower, Oil Cake.....	Ingredients as guaranteed.
148	Chop.....	1913 Claimed Pound	7.00 11.50	3.00 5.70	10.00 5.65	Corn, Oats, Cracked Corn, Siftings and Blowings.....	Contains Oat Hulls.
333	KIRKERSVILLE MILLING CO., KIRKERSVILLE, OHIO.	1913 Claimed Pound	10.00 8.30	3.00 3.15	4.00 1.90	Cracked Corn, Wheat, Oats, Barley, Kafir Corn, Sunflower Seed, Buck- wheat, Grit.....	Ingredients as guaranteed.
248	KORNFALFA FEED MILLING CO., KANSAS CITY, MO.	1913 Claimed Pound	9.00 9.90	2.50 2.90	12.00 10.35	Alfalfa Meal, Molasses, Corn, Oats.....	Ingredients as guaranteed.
393	Klimax Horse & Mule Feed.....	1913 Claimed Pound	8.00 12.70	1.50 0.85	17.00 .45	Corn, Oats, Alfalfa, Molasses.....	Ingredients as guaranteed.
441	Kornfalfa Feed.....	1913 Claimed Pound	10.00 13.30	3.50 2.35	12.00 13.90	Alfalfa Meal, Corn, Oats.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein	Crude Fat	Crude Fiber	Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.		
	KRAUSE MILLING CO., CHAS. A., MILWAUKEE, WIS.	1913					
73	Badger Hominy Feed.....	Claimed Found	10.00 11.70	6.00 6.70	5.00 5.25	From White Corn.....	Ingredients as guaranteed.
87	Badger Dairy Feed.....	Claimed Found	16.00 15.55	2.00 4.10	15.00 16.70	Cotton Seed Meal, Corn Oil Meal, Malt Sprouts, Dried Grains, Alfalfa Meal, Molasses, 10¢ 1% Salt.....	Ingredients as guaranteed.
228	Badger Fancy Middlings.....	Claimed Found	12.00 13.60	4.50 5.75	7.00 3.60	Wheat Middlings and Maize, (Red Dog Flour).....	Ingredients as guaranteed.
95	LACKMAN BREWING CO., THE HERMAN, CINCINNATI, OHIO.	1913					
	Malt Sprouts.....	Claimed Found	18.00 27.30	1.43 1.45	19.00 11.00	From Barley.....	Ingredients as guaranteed.
161	LACLEDE MILLS, ST. LOUIS, MO.	1913					
	Blue Bell Sugar Feed.....	Claimed Found	16.00 13.75	3.00 2.80	12.00 11.85	Wheat, Corn, Oats, Barley, Cotton Seed Meal, Salt, Grain Screenings, Molasses.....	Ingredients as guaranteed.
44	LAKE SHORE ELEVATOR CO., THE, CLEVELAND, OHIO.	1913					
	No. 2 Chop Feed.....	Claimed Found	8.00 8.60	3.05 3.35	6.00 6.75	White or Yellow Shelled Corn, Oat Shorts, Oat Hulls.....	Ingredients as guaranteed.
252	Farmer Horse Food.....	Claimed Found	10.94 10.70	4.35 4.55	6.50 5.90	Rolled Oats, Cracked Corn, Molasses, Bran.....	No Wheat Bran.
379	La-Egg Scratch Feed.....	Claimed Found	11.00 9.95	4.50 2.65	4.00 2.45	Corn, Wheat, Barley, Buckwheat, Kafir Corn, Sunflower.....	Ingredients as guaranteed.
29	LAROWE MILLING CO., THE, DETROIT, MICH.	1913					
	Dried Beet Pulp.....	Claimed Found	8.00 9.60	0.50 0.70	20.00 19.50	Residue of Sugar Beets after extraction of Sugar.....	Ingredients as guaranteed.

266	Larro Feed.....	Claimed Found	19.00 20.55	3.00 4.15	14.00 12.00	Cotton Seed Meal, Gluten Feed, Dried Distillers' Grains, Dried Beet Pulp, Wheat Bran, Wheat Middlings, $\frac{1}{4}$ of 1% Salt.....	Ingredients as guaranteed.
	LAXO CAKE MEAL COMPANY, CHICAGO, ILL.	1913					
96	Old Process Laxo Cake Meal.....	Claimed Found	25.00 25.65	6.00 8.55	12.00 9.30	Crude Flax Seed with Field Seeds.....	Ingredients as guaranteed.
	LEISY BREWING COMPANY, THE I., CLEVELAND, OHIO.	1913					
118	Malt Sprouts.....	Claimed Found	20.00 28.70	1.50 1.55	17.00 12.65	From Barley.....	Ingredients as guaranteed.
221	LOUDENSLAGER, JOS., TIFFIN, OHIO. Chop Feed.....	Claimed Found	9.50 9.95	5.50 4.20	7.60 4.50	Corn, Oats, Corn Bran, Corn Meal, Middlings.....	Ingredients as guaranteed.
	LOUDONVILLE MILL & GRAIN CO., THE, LOUDONVILLE, OHIO.	1913					
389	"Loudonville Chop".....	Claimed Found	7.00 8.75	4.00 3.20	14.00 10.65	Corn, Oats By-products, Corn Bran, Rye.....	Ingredients as guaranteed.
	LOWE, H. A., NEW LEXINGTON, OHIO. Chop.....	Claimed Found	6.00 10.25	2.00 4.40	15.00 3.10	Corn, Oats, Wheat, Rye, Screenings, Corn Bran.....	Ingredients as guaranteed.
210	LYON-GREENLEAF, WAUSEON, OHIO. Waseo Chick Feed.....	Claimed Found	11.00 12.15	3.50 5.00	3.50 4.10	Corn, Wheat, Millet, Charcoal.....	Ingredients as guaranteed.
407	Waseo Scratch Feed.....	Claimed Found	11.00 13.80	3.50 2.75	3.50 5.85	Corn, Wheat, Sunflower Seed, Buck- wheat, Charcoal.....	Ingredients as guaranteed.
457	MAJOR COMPANY, THE GUY O., TOLEDO, OHIO.	1913					
58	Old Process Linseed Oil Meal.....	Claimed Found	30.00 32.55	5.00 6.30	10.00 7.90	From Flax Seed.....	Ingredients as guaranteed.
	MANSFIELD PACKING COMPANY, THE, MANSFIELD, OHIO.	1913					
1	Tankage.....	Claimed Found	39.90 31.15	18.05 20.75	5.45 2.00	Packing House Offal.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		
334	MAYFLOWER MILLS, FT. WAYNE, IND. Bon Ton Poultry Feed.....	1913 Claimed Found	10.00	2.50		2.50	2.50		Sunflower Seed, Wheat, Corn, Barley, Kaffir Corn, Oats, Milo Maize, Charcoal, Grit.....	Ingredients as guaranteed.
			10.05	3.50		3.50	1.95			
455	MEDINA FARMERS' EXCHANGE CO., MEDINA, OHIO. Seneca Distillers' Grains.....	1913 Claimed Found	25.00	6.00		6.00	14.00		Distillers' Grains.....	Ingredients as guaranteed.
			34.30	9.55		9.55	11.15			
17	METZGER SEED & OIL CO., THE, TOLEDO, OHIO. Old Process Oil Meal.....	1913 Claimed Found	30.00	5.00		5.00	10.00		From Flax Seed.....	Ingredients as guaranteed.
			32.65	6.50		6.50	8.85			
189	MIAMI MILLING CO., XENIA, OHIO. Miami Chick.....	1913 Claimed Found	11.00	4.00		4.00	5.00		Corn, Kaffir Corn, Wheat, Millet, Refined Miscellaneous Seeds.....	Ingredients as guaranteed.
			10.20	4.55		4.55	1.80			
190	Miami Scratch.....	Claimed Found	11.50	4.00		4.00	6.50		Corn, Wheat, Kaffir Corn, Buckwheat, Sunflower Seed, Refined Miscellaneous Seeds.....	Ingredients as guaranteed.
			11.50	3.10		3.10	2.25			
191	Miami Chop.....	Claimed Found	10.15	4.75		4.75	6.00		Corn, Oats, By-products of Poultry Feed.....	Ingredients as guaranteed.
			11.80	5.30		5.30	7.20			
380	MIDLAND GROCERY CO., THE, WASHINGTON C. H., OHIO. Red Bird Laying Feed.....	1913 Claimed Found	11.38	3.37		3.37	3.08		Cracked Corn, Kaffir Corn, Wheat, Rye, Buckwheat, Sunflower, Peas, Oats.....	Ingredients as guaranteed.
			10.10	3.30		3.30	2.35			
381	Red Bird Chick Feed.....	Claimed Found	10.85	3.15		3.15	3.75		Cracked Corn, Millet, Wheat, Kaffir Corn.....	Ingredients as guaranteed.
			11.10	2.83		2.83	2.00			

15	MIDLAND LINSEED PRODUCTS CO., MINNEAPOLIS, MINN.	1913 Claimed Pound	32.00 35.90	6.00 6.40	8.50 7.80	From Flax Seed	Ingredients as guaranteed.
30	MILLER AND NEAL CO. THE, WARREN, OHIO.	1913 Claimed Pound	26.00 28.55	4.00 4.56	13.00 11.30	Malt Sprouts, Distillers' Dried Grains, Salt, Malt Sugar Grains, Cotton Seed Meal, Molasses	Ingredients as guaranteed.
305	MILLS BROS., LORAIN, OHIO.	1913 Claimed Pound	10.00 11.35	2.50 2.85	5.00 2.20	Wheat, Kafir Corn, Oats, Barley, Buckwheat, Sunflower, Rye, Cracked Corn	Ingredients as guaranteed.
120	MORRIS AND CO., CHICAGO, ILL.	1913 Claimed Pound	40.00 54.65	8.00 9.40	5.00 4.10	Meat Scraps	Ingredients as guaranteed.
156	Big Brand 40% Digester Tanlage	Claimed Pound	60.00 46.55	8.00 11.80	5.00 5.05	Meat Scraps	Ingredients as guaranteed.
390	MOTTS & CO., D., PARIS, OHIO.	1913 Claimed Pound	7.00 10.55	2.50 4.00	10.00 7.10	Oats, Corn and Corn Bran	Ingredients as guaranteed.
311	MUD LICK DISTILLERY CO., THE, GERMANTOWN, OHIO.	1913 Claimed Pound	29.90 29.00	8.13 8.60	13.65 11.70	Dried residue after distillation of whiskey from Corn, Rye and Bar- ley Malt	Ingredients as guaranteed.
315	MUELLER CO., THE JOHN, LOCKLAND, OHIO.	1913 Claimed Pound	11.00 10.20	3.90 3.45	2.70 2.25	Cracked Corn, Kafir Corn, Barley, Buckwheat, Oats, Wheat Sunflower Seed, Oil Cake	Ingredients as guaranteed.
385	MURPHY & SON, H., LYNCHBURG, O.	1913 Claimed Pound	10.75 10.95	3.00 3.45	5.00 5.25	Shelled Corn, Screenings	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein.		Crude Fat.		Crude Fiber.		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		
311	McCULLOUGH, J. CHARLES, CINCINNATI, OHIO.	1913 Claimed Found	10.00 13.75	3.00 3.40	11.00 6.30	Corn, Wheat, Rye, Oats, Barley, Buckwheat, Kafir Corn, Cane Seed, Sunflower Seed, Millet Seed, Screenings principally of Grains, Millet, Cane, Clover, not more than 10% Grit.				Ingredients as guaranteed.
220	Acme Chick	Claimed Found	10.00 10.40	3.00 3.30	11.00 4.65	Millet Seed, Cracked Corn, Wheat, Buckwheat, Kafir Corn, Cane Seed, Screenings from grains, Millet Seed, Clover Seed and not more than 10% Grit.				Ingredients as guaranteed.
417	MCDONALD MILLING CO., MCDONALD, PA.	1913 Claimed Found	10.00 8.55	2.50 1.10	11.00 10.35	Alfalfa, Cracked Corn, Oats, Molasses				Ingredients as guaranteed.
463	McLEAN CO., THE HERRMAN, CLEVELAND, OHIO.	1913 Claimed Found	8.00 11.45	2.50 2.70	5.00 3.35	Wheat, Cracked Corn, Kafir Corn, Barley, Screenings, Buckwheat, Sunflower Seed				Ingredients as guaranteed.
414	NATIONAL FEED CO., ST. LOUIS, MO.	1913 Claimed Found	41.00 40.20	7.50 7.70	14.00 11.40	Cotton Seed Meal				Ingredients as guaranteed.
382	NELSON-SHEARHOD CO., LITTLE ROCK, ARK.	1913 Claimed Found	38.00 39.20	5.50 7.10	12.00 13.30	Cotton Seed Meal				Ingredients as guaranteed.
240	NEW LEXINGTON MILLING CO., NEW LEXINGTON, OHIO.	1913 Claimed Found	5.00 11.40	3.00 2.60	25.00 5.25	Crushed Corn and Cob, Wheat Bran, Wheat Screenings, Middlings, Oats				Ingredients as guaranteed.

NICKEL PLATE ELEVATOR CO., THE, CLEVELAND, OHIO.		1913					
9	Economy Chick	Claimed Pound	10.75 11.50	3.15 2.85	5.00 2.20	Cut Wheat, Oat Meal, Cracked Kafir, Fine Cracked Corn, Millet Seed	Ingredients as guaranteed.
169	Economy Scratch	Claimed Pound	10.75 10.65	3.15 3.30	5.00 2.25	Wheat, Kafir Corn, Barley Cracked Corn, Buckwheat and Sunflower Seed	Ingredients as guaranteed.
172	Economy Corn Feed Meal	Claimed Pound	9.15 9.20	4.25 3.95	2.40 2.70	Siftings from Cracked Corn	Ingredients as guaranteed.
202	Economy Chick With Grit	Claimed Pound	10.75 10.50	3.15 2.95	5.00 1.85	Cut Wheat, Cracked Kafir Corn, Millet Seed, Fine Cracked Corn, 6% Grit	Ingredients as guaranteed.
214	Imperial Chick	Claimed Pound	10.75 11.60	3.15 3.35	5.00 2.50	Cut Wheat, Cut Oat Meal, Cracked Corn, Millet Seed, Cracked Kafir Corn	Ingredients as guaranteed.
217	Imperial Scratch	Claimed Pound	10.75 11.05	3.15 3.05	5.00 2.65	Wheat, Cracked Corn, Kafir Corn, Barley, Buckwheat, Sunflower Seed	Ingredients as guaranteed.
218	Imperial Growing	Claimed Pound	10.75 10.85	3.15 2.80	5.00 1.95	Cracked Corn, Wheat, Kafir Corn, Millet Seed, Hulled Oats	Ingredients as guaranteed.
232	Economy Molasses Horse Feed	Claimed Pound	12.00 10.35	4.00 4.20	7.00 5.50	Rolled Oats, Cracked Corn, Bran and Molasses	No Wheat Bran.
408	Economy Mash Feed	Claimed Pound	16.50 20.15	4.77 3.80	7.70 6.15	Beef Scraps, Alfalfa, Heneta Bone, Gluten Meal, Corn Meal, Oil Meal, Wheat Bran	Ingredients as guaranteed.
410	Economy Chop Feed	Claimed Pound	9.63 9.75	4.37 3.80	7.80 8.75	Corn Feed Meal, Oat Shorts, Oat Hulls	Ingredients as guaranteed.
421	Imperial Pigeon	Claimed Pound	10.75 12.15	3.15 3.35	5.00 2.50	Cracked Corn, Peas, Wheat Kafir Corn, Hemp Seed	Ingredients as guaranteed.
422	Economy Scratch with Grit	Claimed Pound	10.75 10.15	3.15 3.20	5.00 2.40	Wheat, Cracked Corn, Kafir Corn, Barley, Buckwheat, Charcoal, Sun- flower Seed, not over 6% Grit	Ingredients as guaranteed.
NICKEL PLATE MILLING CO., THE, PAINESVILLE, OHIO.		1913					
224	Our Malt Sugar Grains	Claimed Pound	22.00 27.00	7.00 7.05	10.00 9.00	Malt Grains, Granulated Sugar	Mere trace of Sugar.
373	Nickel Plate Scratch Feed	Claimed Pound	10.00 10.20	3.00 3.20	5.00 2.45	Wheat, Cracked Corn, Kafir Corn, Buckwheat, Oats	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Found	Per Cent.	Found	Per Cent.	Found		
445	NOBLESVILLE MILLING CO., NOBLESVILLE, IND. N. M. Co.'s Mixed Feed.....	1913 Claimed Found	16.00 17.75		4.00 3.95		8.00 8.85		Wheat Bran, Middlings, Ground Wheat Screenings.....	Ingredients as guaranteed.
450	NORTHERN ILLINOIS CEREAL CO., LOCKPORT, ILL. Gold Medal Chick Food.....	1913 Claimed Found	10.00 10.90		2.50 2.45		5.00 5.00		Corn, Wheat, Kaffir, Millet, Hulled Oats, Charcoal.....	Ingredients as guaranteed.
194	NOTHERN, W. C., LITTLE ROCK, ARK. Bes Brand.....	1913 Claimed Found	41.00 42.75		6.00 8.10		10.00 9.00		From Decorticated Cotton Seed.....	Ingredients as guaranteed.
136	NORTHWESTERN ELEVATOR & MILL CO., THE, MOUNT VERNON, O. Corn and Oats Chop.....	1913 Claimed Found	10.70 11.20		4.30 5.25		9.00 6.40		Corn, Oats, Corn Siftings, Corn Bran	Ingredients as guaranteed.
137	Special Middlings.....	Claimed Found	13.00 13.15		4.00 4.75		5.00 4.55		Wheat Middlings, Ground Wheat.....	Adulterated with Corn.
413	NORTH-WEST MILLS CO., WINONA, MINN. Sugarcote Calf Meal.....	1913 Claimed Found	25.00 24.20		6.00 4.95		6.00 5.00		Pulverized Wheat, Pulverized Malt, Linseed Meal, Cotton Seed Meal.....	Ingredients as guaranteed.
369	NORTON & CO., WILLIS, TOPEKA, KAN. Bran and Screenings.....	1913 Claimed Found	13.25 17.60		3.40 3.95		9.62 8.50		Wheat Bran, Ground Wheat Screen- ings.....	Ingredients as guaranteed.
370	Shorts and Screenings.....	Claimed Found	17.50 18.15		4.50 3.75		6.30 4.65		Wheat Shorts, Ground Wheat Screen- ings.....	Ingredients as guaranteed.

434	OAK HILL MILLING CO., OAK HILL, OHIO.	1913 Claimed Found	9.00 14.05	2.00 3.30	12.00 9.35	Wheat Bran, Corn Bran, Screenings—	Ingredients as guaranteed.
138	OHIO SALES COMPANY, THE, NEW PHILADELPHIA, OHIO.	1913 Claimed Found	10.00 10.90	3.00 2.95	5.00 2.55	Corn, Wheat, Barley, Oats, Kaffir Corn, Buckwheat, Sunflower, Crushed Oyster Shells, Grit—	Ingredients as guaranteed.
284	O'ROARK, J. A. & W. L., COVINGTON, OHIO.	1913 Claimed Found	5.00 11.50	2.00 4.85	10.00 6.20	Corn, Corn Bran, Oats—	Ingredients as guaranteed.
267	ORRVILLE MILLING CO., THE ORRVILLE, OHIO.	1913 Claimed Found	10.50 13.20	3.00 2.80	5.00 3.70	Corn, Wheat, Kaffir Corn, Sunflower, Oats, Buckwheat, Wheat Screenings	Ingredients as guaranteed.
320	PARK AND POLLARD CO., THE, BOSTON, MASS.	1913 Claimed Found	10.00 10.75	3.50 2.10	5.00 2.50	Cracked Corn, Wheat, Barley, Buck- wheat, Kaffir Corn, Milo, Sunflower Seed—	Ingredients as guaranteed.
361	Dry Mash	Claimed Found	18.00 20.50	3.50 3.90	12.00 9.10	Ground Wheat Bran, Wheat Midds., Corn, Wheat, Oats, Barley, Kaffir Corn, Buckwheat, Alfalfa, Fish Meal, Bone, Beet Pulp, Salt—	Ingredients as guaranteed.
446	Growing Feed	Claimed Found	10.00 16.55	3.50 4.15	8.00 3.25	Ground Corn, Wheat, Barley, Oats, Meat, Bone, Alfalfa, Kaffir Corn, Wheat Bran, Wheat Middings, Buckwheat, Beet Pulp, Salt—	Ingredients as guaranteed.
88	PEEBLES MILLS, THE, PEBBLES, O.	1913 Claimed Found	14.00 15.40	4.00 3.85	8.00 7.55	Wheat Bran, Corn Bran, Wheat Screenings—	Ingredients as guaranteed.
42	PEE PEE MILLING COMPANY, WAVERLY, OHIO.	1913 Claimed Found	12.00 14.55	4.00 3.90	9.00 4.90	Corn Bran, Wheat Bran, Screenings, Middings—	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuffa.	Claimed and Found	Crude Protein	Crude Fat	Crude Fiber	Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.		
	PETERS' MILL CO., M. C., OMAHA, NEB.	1913					
53	Peters' Arab Horse Feed.....	Claimed Found	9.00 11.10	2.00 1.95	15.00 8.55	Cracked Corn, Whole Oats, Alfalfa, Molasses.....	Ingredients as guaranteed.
55	Peters' June Pasture Dairy Meal.....	Claimed Found	10.00 13.15	0.50 0.40	26.00 18.15	Alfalfa Meal and Molasses.....	Ingredients as guaranteed.
72	Peters' Lucern Alfalfa Meal.....	Claimed Found	12.00 15.80	0.50 2.45	33.00 26.65	Alfalfa.....	Ingredients as guaranteed.
	PERIN BROS., CINCINNATI, OHIO.	1913					
336	Hominy Feed.....	Claimed Found	10.70 10.30	7.80 7.75	3.20 4.10	Corn Product.....	Ingredients as guaranteed.
	PHILLIPS SHEET AND TIN PLATE CO., WEIRTON, W. VA.	1913					
429	Palm Oil Middlings.....	Claimed Found	18.28 16.80	8.95 7.65	4.82 6.10	Middlings and Lagos Palm Oil.....	Ingredients as guaranteed.
	PIEL BROS. STARCH CO., INDIANAPOLIS, IND.	1913					
388	P. Bro. Gluten Feed.....	Claimed Found	21.00 23.50	2.00 2.45	8.00 6.50	By-product of Corn Starch and Glucose with Bran.....	Ingredients as guaranteed.
	PILLIOD MILLING CO., THE, SWANTON, OHIO.	1913					
216	Pilliod's All Grain Chicken Feed.....	Claimed Found	9.00 10.00	2.50 2.85	8.00 3.40	Cracked Corn, Wheat, Oats, Rye, Barley, Buckwheat and Wheat Screenings.....	Ingredients as guaranteed.
	PIONEER CEREAL CO., THE, AKRON, OHIO.	1913					
35	Pioneer Scratch Feed.....	Claimed Found	10.94 10.65	2.60 3.10	8.50 2.80	Cracked Corn, Kafir Corn, Oats, Barley, Wheat, Buckwheat, Sunflower Seed.....	Ingredients as guaranteed.

106	Pioneer Corn and Oats Chop.....	Claimed Found	10.00 9.40	4.00 4.60	10.00 9.80	Corn, Oat Middlings, Oat Shorts, Oat Hulls.....	Ingredients as guaranteed.
119	Pioneer Stock Feed.....	Claimed Found	10.00 10.15	3.50 4.55	10.00 7.85	Shelled Corn, Barley, Oat Shorts, Oat Hulls, Oat Middlings.....	Ingredients as guaranteed.
318	Yellow Hominy Feed.....	Claimed Found	10.00 10.00	7.00 5.10	9.00 3.05	Yellow Corn Product.....	Ingredients as guaranteed.
254	PIQUA MALT CO., THE, PIQUA, OHIO. Malt Sprouts.....	1913 Claimed Found	24.08 23.50	1.87 1.85	13.25 10.90	Malt Sprouts.....	Ingredients as guaranteed.
128	PRATT FOOD CO., CHICAGO, ILL. AND PHILADELPHIA, PA. Pratt's Baby Chick Food.....	1913 Claimed Found	12.00 13.60	3.00 3.30	2.00 1.40	Hulled Oats, Corn Meal, Wheat Midds., Epsom Salts, Bone Meal, Cooked Wheat, Pepper, Gentian, Millet, Ginger, Rape, Caraway, Shell Meal.....	Ingredients as guaranteed.
18	QUAKER OATS COMPANY, THE, CHICAGO, ILL. Blue Ribbon Dairy Feed.....	1913 Claimed Found	25.00 23.75	4.00 4.25	9.00 10.50	Hominy Feed, Malt Sprouts, Wheat Bran, Cotton Seed Meal, Clipped Oat By-product, Molasses.....	Ingredients as guaranteed.
22	Dairy Hen Feed.....	Claimed Found	10.00 11.00	2.50 4.25	5.00 2.10	Whole Wheat, Whole Kafir Corn, Cracked Indian Corn, Whole Buck- wheat, Sunflower Seeds, Ground Oyster Shell or Marble Grit.....	Ingredients as guaranteed.
33	White Diamond Feed.....	Claimed Found	8.00 8.80	3.25 3.15	9.00 6.65	Ground Corn, Hominy Feed, Oat Meal Mill By-product, Oat Midds., Oat Hulls, Oat Shorts, $\frac{1}{2}$ of 1% Salt.....	Ingredients as guaranteed.
34	Schumacher Stock Feed.....	Claimed Found	10.00 11.70	3.25 3.40	10.00 9.05	Ground Corn, Hominy Feed, Ground Barley, Wheat Flour, Wheat Midds., Cotton Seed Meal, Oat Meal, Mill By-product (Oat Midds., Oat Hulls, Oat Shorts), $\frac{1}{2}$ of 1% Salt.....	Ingredients as guaranteed.
43	Quaker Scratching Grains.....	Claimed Found	10.00 11.55	2.50 3.55	5.00 2.45	Whole Wheat, Whole Kafir Corn, Whole Barley, Cracked Indian Corn, Whole Buckwheat, Sunflower Seeds, Charcoal.....	Ingredients as guaranteed.
61	Victor Feed.....	Claimed Found	8.00 9.60	3.00 4.15	12.00 8.35	Ground Corn, Hominy Feed, Oat Meal Mill By-products (Oat Midds., Oat Hulls, Oat Shorts), $\frac{1}{2}$ of 1% Salt.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.	
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.			
	QUAKER OATS COMPANY, THE, CHICAGO, ILL.—Concluded.	1913									
75	Schumacher Scratching Grains.....	Claimed Found	10.00 11.05	2.50 3.60	5.00 3.00	Whole Wheat, Whole Barley, Whole Kafir Corn, Cracked Indian Corn, Whole Buckwheat, Whole Sunflower Seed and Charcoal.....					Ingredients as guaranteed.
76	Schumacher Calf Meal.....	Claimed Found	19.00 17.45	8.00 7.95	3.00 3.00	Wheat Meal, Oat Meal, Ground Flax Seed, Dried Casein, $\frac{1}{2}$ Bicarbonate of Soda.....					Ingredients as guaranteed.
100	Quaker Molasses Dairy Feed.....	Claimed Found	16.00 17.20	4.50 5.05	14.50 13.10	Molasses, Malt Sprouts, Cotton Seed Meal, Ground Grain Screenings, Clipped Oat By-product.....					Ingredients as guaranteed.
101	Quaker Chick Feed.....	Claimed Found	10.00 11.95	2.50 3.45	5.00 2.75	Cracked Wheat, Cracked Kafir Corn, Cracked Indian Corn, Whole Millet Seed, Oat Meal, Charcoal, Marble Grit.....					Ingredients as guaranteed.
102	C. O. & B. Feed.....	Claimed Found	10.00 10.95	3.25 3.95	10.00 10.40	Ground Corn, Hominy Feed, Ground Barley, Wheat Flour, Wheat Midds., Cotton Seed Meal, Oatmeal Mill By-product, Oat Midds., Oat Hulls, Oat Shorts, $\frac{1}{2}$ of 1% Salt.....					Ingredients as guaranteed.
112	Green Cross Horse Feed.....	Claimed Found	10.00 11.00	3.00 2.75	10.50 12.05	Alfalfa Meal, Ground Corn, Whole Oats, Cotton Seed Meal, Molasses, Oat Meal Mill By-products, Oat Midds., Oat Shorts, Oat Hulls.....					Little Cottonseed Meal.
113	Schumacher Little Chick Feed.....	Claimed Found	10.00 11.05	2.50 3.25	5.00 2.60	Cracked Indian Corn, Cracked Kafir Corn, Cracked Wheat, Millet Seed, Oat Meal, Charcoal, Marble Grit.....					Ingredients as guaranteed.
117	Daisy Dairy Feed.....	Claimed Found	16.00 15.56	4.50 4.00	14.50 12.30	Molasses, Malt Sprouts, Cotton Seed Meal, Ground Grain Screenings, Clipped Oat By-product.....					Ingredients as guaranteed.

171	Blue Ribbon Scratching Grains.....	Claimed Pound	10.00 11.65	2.50 3.55	5.00 2.10	Whole Wheat, Whole Kaffir Corn, Whole Barley, Cracked Indian Corn, Buckwheat, Sunflower Seed, Char- coal.....	Ingredients as guaranteed.
175	Boss Feed.....	Claimed Pound	8.00 9.15	3.00 4.65	12.00 9.10	Ground Corn, Hominy Feed, Oat Mill By-products, Oat Midds., Oat Hulls, Oat Shorts, $\frac{1}{4}\%$ Salt.....	Ingredients as guaranteed.
236	Excelsior Feed.....	Claimed Pound	8.00 9.05	3.00 3.05	12.00 11.70	Ground Corn, Hominy Feed, Oat Meal Mill By-products (Oat Mid- dlings, Oat Hulls, Oat Shorts), $\frac{1}{4}\%$ Salt.....	Ingredients as guaranteed.
237	Schumacher Special Horse Feed.....	Claimed Pound	9.25 9.65	3.25 3.90	8.00 6.70	Ground Corn, Whole Oats, Oat Meal Mill By-products (Oat Middings, Oat Hulls, Oat Shorts), $\frac{1}{4}\%$ Salt.....	Ingredients as guaranteed.
275	Buckeye Mixed Feed.....	Claimed Pound	15.50 17.00	4.50 5.35	8.50 8.40	Wheat Mixed Feed, Rye Shorts.....	Ingredients as guaranteed.
288	Mother's Feed (Chick size).....	Claimed Pound	10.50 11.80	3.00 3.50	2.50 2.40	Cracked Wheat, Cracked Kaffir Corn, Cracked Indian Corn, Millet Seed, Rolled Oats, Oat Meal, Charcoal.....	Ingredients as guaranteed.
316	Yellow Hominy Feed.....	Claimed Pound	9.00 10.20	4.00 5.00	4.00 2.00	Yellow Feed Corn.....	Ingredients as guaranteed.
357	American Hen Scratching Grains.....	Claimed Pound	10.00 10.95	2.50 2.80	5.00 4.50	Whole Wheat, Kaffir Corn, Barley, Charcoal, Indian Corn, Buckwheat, Sunflower, Ground Oyster Shells or Marble Grit.....	Ingredients as guaranteed.
372	American Poultry Food.....	Claimed Pound	12.00 13.00	3.50 5.10	9.00 4.25	Hominy Feed, Cotton Seed Meal, Ground Barley, Wheat Mixture Feed and Rye Shorts.....	Ingredients as guaranteed.
374	Mother's Feed (Hen size).....	Claimed Pound	11.00 12.00	3.50 4.25	2.50 3.25	Whole Wheat, Whole Milo Maize, Oil Cake, Oat Meal, Cracked Indian Corn, Whole Buckwheat, Sunflower Seed, Charcoal.....	Ingredients as guaranteed.
403	Sterling Stock Feed.....	Claimed Pound	10.00 11.20	3.25 3.30	10.00 8.95	Ground Corn, Hominy Feed, Ground Barley, Wheat Flour, Wheat Mid- dlings, Cotton Seed Meal, Oat Meal Mill By-products (Oat Middings, Oat Shorts and Oat Hulls), Ground Puffed Wheat, Ground Puffed Rice, $\frac{1}{4}$ of 1% Salt.....	Ingredients as guaranteed.
458	Schumacher Poultry Mash.....	Claimed Pound	17.50 18.30	4.00 4.70	10.00 7.10	Meat Scraps, Oat Meal, Wheat Bran, Alfalfa Meal, Yellow Hominy Feed, Gluten Feed, Ground Grain Screen- ings.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		
	RALSTON PURINA COMPANY, ST. LOUIS, MO.	1913								
4	Purina Mill Feed—Scratch Size.....	Claimed Found	11.00 11.35	3.00 3.60			4.00 2.85		Wheat, Corn, Oats, Barley, Kaffir or Milo Maize, Sunflower, Recleaned Wheat Screenings.....	Ingredients as guaranteed.
12	Purina Chicken Chowder.....	Claimed Found	17.00 20.00	3.00 4.65			9.00 7.30		Charcoal, Middlings, Bran, Corn Meal, Alfalfa Meal, Linseed Meal, Granulated Meat.....	Ingredients as guaranteed.
132	Purina Pigeon Feed.....	Claimed Found	11.00 12.70	3.00 3.70			4.00 2.50		Wheat, Corn, Millet, Kaffir or Milo Maize, Peas and Recleaned Wheat Screenings.....	Ingredients as guaranteed.
174	Purina Mill Feed (Chick Size).....	Claimed Found	10.55 11.40	3.40 2.15			4.00 2.10		Wheat, Corn, Kaffir or Milo Maize, Recleaned Wheat Screenings.....	Ingredients as guaranteed.
185	Purina Molasses Feed.....	Claimed Found	9.00 11.40	1.50 2.15			12.00 11.60		Cracked Corn, Whole Oats, Ground Alfalfa, Molasses.....	Ingredients as guaranteed.
289	Purina Dairy Feed.....	Claimed Found	16.50 18.75	3.00 3.25			15.00 18.10		Cotton Seed Meal, Brewers' Dried Grains, Corn Feed Meal, Ground Alfalfa, Molasses, 1 % Salt.....	Ingredients as guaranteed.
306	Purina Sweet Feed.....	Claimed Found	10.30 13.40	1.20 1.90			18.00 18.80		Ground Alfalfa, Ground Grain Screenings, Molasses.....	Ingredients as guaranteed.
	RANKIN CO., M. G., MILWAUKEE, WIS.	1913								
84	Jersey Malt Sprouts.....	Claimed Found	25.00 25.40	1.50 1.70			17.00 12.85		From Barley.....	Ingredients as guaranteed.
	RAUH & SONS FERTILIZER CO., E., INDIANAPOLIS, IND.	1913								
431	Rauh's Beef Scrap.....	Claimed Found	50.00 64.20	6.00 11.50			1.70		Beef Scraps.....	Ingredients as guaranteed.

448	Rauh's Digester Tankage for Hogs.....	Claimed Pound	60.00 60.95	8.00 8.35	1.35	Meat Product.....	Ingredients as guaranteed.
340	READING FEED MILL, READING, O. Fiege's Scratch Feed.....	1913 Claimed Pound	10.00 10.45	2.50 3.25	5.00 2.50	Cracked Corn, Wheat, Kafir Corn, Screenings, Sunflower Seed.....	Ingredients as guaranteed.
38	RESENER & CO., GALLIPOLIS, OHIO. Wheat and Corn Bran.....	1913 Claimed Pound	10.50 13.75	4.00 4.90	10.00 9.50	Wheat Bran and Corn Bran.....	Ingredients as guaranteed.
47	RICHMOND DALE MILLING CO., RICHMOND DALE, OHIO. Mixed Chop.....	1913 Claimed Pound	10.00 10.00	4.00 4.30	6.00 4.20	Shelled Corn, Wheat Screenings, Corn Bran, Oats.....	Ingredients as guaranteed.
142	RIDGWAY & SON, FRANK, NEW PHILADELPHIA, OHIO. Ridgway's Scratch Feed.....	1913 Claimed Pound	10.00 11.20	3.00 3.05	5.00 2.25	Cracked Corn, Wheat, Kafir Corn, Buckwheat, Barley, Sunflower Seed	Ingredients as guaranteed.
143	RINGLEIN & SONS, ANDREW, LIMA, OHIO. Laymore Poultry Feed (Scratch Size).....	1913 Claimed Pound	10.50 11.05	3.70 3.65	3.50 2.80	Cracked Corn, Wheat, Oats, Barley, Kafir Corn, Buckwheat, Sunflower, Charcoal.....	Ingredients as guaranteed.
24	ROBINSON-DANFORTH COMPANY, ST. LOUIS, MO. Winner Mill Feed (Scratch Size).....	1913 Claimed Pound	10.00 10.60	3.00 4.00	6.00 2.30	Corn, Wheat, Barley, Kafir or Milo Maize, Sunflower, Re-cleaned Wheat Screenings.....	Ingredients as guaranteed.
25	Winner Mill Feed (Chick Size).....	Claimed Pound	10.00 11.25	3.00 3.80	6.00 2.45	Wheat, Corn, Millet, Kafir or Milo Maize, Re-cleaned Wheat Screenings	Ingredients as guaranteed.
141	Success Mill Feed (Chick Size).....	Claimed Pound	10.00 11.15	3.00 3.80	6.00 2.25	Wheat, Corn, Millet, Kafir or Milo Maize, Re-cleaned Wheat Screenings	Ingredients as guaranteed.
265	Success Mill Feed (Scratch Size).....	Claimed Pound	10.00 10.65	3.00 3.70	6.00 2.45	Wheat, Corn, Barley, Kafir or Milo Maize, Sunflower, Re-cleaned Wheat Screenings.....	Ingredients as guaranteed.
246	ROBITZER & KRETZ, MASON, OHIO. R. & K. Chop.....	1913 Claimed Pound	8.00 10.75	2.00 3.75	16.00 5.50	Corn, Corn Bran, Oats, Wheat Bran, Alfalfa, Oil Meal.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		
451	ROCKWELL, G. G., NORTH BALTIMORE, OHIO.	1913	11.00	3.00	4.00	Wheat, Kafir Corn, Oats, Barley, Corn, Buckwheat, Charcoal, Sunflower.	Ingredients as guaranteed.			
		Claimed Found	10.70	2.45	3.75					
461	RUFFING & MISSLER, MARION, OHIO.	1913	13.50	2.75	5.00	Wheat, Kafir Corn, Hemp Seed, Peas, Buckwheat, Millet.	Ingredients as guaranteed.			
		Claimed Found	15.10	2.80	3.50					
279	SABINA FLOUR MILL CO., SABINA, O.	1913	10.42	4.02	3.11	Kafir Corn, Wheat, Milo Maize, Oats, Corn, Buckwheat, Sunflower Seed.	Ingredients as guaranteed.			
		Claimed Found	10.00	3.50	2.75					
195	SALEM FLOUR MILL CO., SALEM, O.	1913	10.00	4.00	7.00	Corn, Oats, Corn Bran.	Ingredients as guaranteed.			
		Claimed Found	11.80	4.80	5.50					
386	SATTETHWAIT CO., W. D., SALEM, O.	1913	19.90	5.61	6.71	Corn, Oats, Bran, Oil Meal, Cotton Seed Meal, Hominy Feed, Gluten Feed.	Ingredients as guaranteed.			
		Claimed Found	20.90	4.80	7.30					
292	SCHMIDT AND WALKER CO., THE, CINCINNATI, OHIO.	1913	11.81	8.93	4.82	Corn Hearts and Oats.	Some Corn Bran.			
		Claimed Found	11.05	6.60	5.20					
294	Snow King Hominy Feed.	1913	10.06	7.89	4.35	White Corn.	Ingredients as guaranteed.			
		Claimed Found	9.95	7.85	4.95					
307	Snow King Germ Food.	1913	12.25	7.70	7.35	Corn and Barley.	Ingredients as guaranteed.			
		Claimed Found	11.00	7.00	5.35					

309	SEBALD GRAIN COMPANY, MIDDLETOWN, OHIO.	Chop.....	1913 Claimed Found	7.50 8.85	2.00 4.20	12.00 3.35	Oats, Corn, Corn Bran.....	Ingredients as guaranteed.
94	SEELMEYER-FOX GRAIN CO., THE, CINCINNATI, OHIO.	Our Own Chop Feed.....	1913 Claimed Found	7.00 9.20	4.92 3.80	16.27 3.06	Corn Products and Oat Cleanings.....	Ingredients as guaranteed
302		Our Own Scratch Feed.....	Claimed Found	11.01 10.90	3.49 3.00	7.05 2.36	Cracked Corn, Kafir Corn, Wheat, Barley, Sunflower Seed, Buckwheat, Shell Corn.....	Ingredients as guaranteed.
227	SHEETS BROS. ELEVATOR CO., THE, CLEVELAND, OHIO.	Special S. B. Poultry Feed.....	1913 Claimed Found	10.50 11.50	3.00 2.55	3.00 3.56	Corn, Kafir, Wheat, Buckwheat, Bar- ley, Sunflower.....	Ingredients as guaranteed.
238		S. B. Special Chick Feed.....	Claimed Found	10.00 11.00	2.50 3.45	5.00 1.70	Oat Meal, Millet, Ground Wheat, Kafir Corn, Ground Corn.....	Ingredients as guaranteed.
306		Regular S. B. Poultry Feed.....	Claimed Found	10.00 9.75	4.00 3.20	4.00 2.50	Corn, Kafir Corn, Wheat, Buckwheat, Barley, Sunflower, Grit.....	Ingredients as guaranteed.
426		S. B. Horse & Mule Feed.....	Claimed Found	10.00 11.55	3.75 3.80	8.00 5.96	Oats, Corn, Bran, Molasses.....	Ingredients as guaranteed.
186	SHEPARD, CLARK & CO., CLEVELAND, OHIO.	"Euclid" Hominy Feed.....	1913 Claimed Found	8.50 10.90	7.00 7.40	7.00 4.35	From Corn.....	Ingredients as guaranteed.
3	SHERWIN-WILLIAMS CO., THE, CLEVELAND, OHIO.	S. W. C. Linseed Oil Meal.....	1913 Claimed Found	33.00 35.20	6.00 8.75	8.00 8.10	Linseed Meal.....	Ingredients as guaranteed.
337	SOHNEN MALT CO., THE EDW., HAMILTON, OHIO.	Malt Sprouts.....	1913 Claimed Found	22.75 24.95	2.13 1.25	15.65 12.15	From Barley.....	Ingredients as guaranteed.
181	SPARKS MILLING CO., TERRE HAUTE, IND.	Wabash.....	1913 Claimed Found	14.00 16.45	3.50 4.35	8.00 7.15	Bran, Middlings, Screenings or Bran and Screenings.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		
324	SPRATT'S PATENT (AMERICAN), LIMITED, NEWARK, N. J. Chick Meal No. 5.....	1913 Claimed Found	20.00 20.63	3.50 1.80	2.00 1.05	Very little Meat.				
208	STADLER RENDERING & FERTILIZER CO., THE J. L. & H., CLEVELAND, OHIO. Stadler's Feeding Tankage.....	1913 Claimed Found	40.00 44.00	10.00 12.25	2.00 2.35	Ingredients as guaranteed.				
89	STALEY MANUFACTURING CO., A. E., DECATUR, ILL. Staley's Gluten Feed.....	1913 Claimed Found	23.00 26.80	2.50 3.15	12.00 7.00	Ingredients as guaranteed.				
50	STANDARD CEREAL CO., THE, CHILLICOTHE, OHIO. "Standard" Hominy Feed.....	1913 Claimed Found	10.00 10.05	7.00 7.20	4.00 2.55	Ingredients as guaranteed.				
436	Logan Scratch Feed.....	Claimed Found	10.00 12.65	2.25 2.00	5.00 2.05	Ingredients as guaranteed.				
126	STAR MILL COMPANY, RACINE, OHIO. Chop Feed.....	1913 Claimed Found	10.50 10.95	4.00 4.25	5.00 4.25	Ingredients as guaranteed.				
208	STEDMAN COMPANY, THE P. C., ATHENS, OHIO. Little Pig Tankage.....	1913 Claimed Found	35.00 35.00	21.80 21.25	4.45 4.30	Ingredients as guaranteed.				

250	STEBENVILLE MILLING CO., THE, STEBENVILLE, OHIO.	Subana.....	1913 Claimed Found	7.00 10.50	2.50 2.55	8.00 3.35	Corn, Oats, Corn Siftings, Corn Bran.	Ingredients as guaranteed.
107	SUFFERN-HUNT & CO., DECATUR, ILL.	Acme Hominy Feed.....	1913 Claimed Found	9.00 11.55	7.10 8.75	10.00 4.35	Corn Bran, Corn Offal in Milling Process.....	Ingredients as guaranteed.
164	SUGARINE COMPANY, THE, PEORIA, ILL.	Suco Alfalfa Meal.....	1913 Claimed Found	13.00 15.25	2.00 1.70	30.00 29.90	Alfalfa Hay.....	Ingredients as guaranteed.
165		Suco Cottonseed Meal.....	Claimed Found	41.00 50.00	8.00 8.15	10.00 4.85	Cotton Seed Product.....	Ingredients as guaranteed.
173		Sugarine Scratch Feed.....	Claimed Found	10.00 11.80	3.00 3.65	5.00 2.55	Cracked Corn, Feed Wheat, Kafir Corn, Linseed Oil Cake, Buck- wheat, Barley and Sunflower Seed.	Ingredients as guaranteed.
301		Sugarine Chick Feed.....	Claimed Found	10.00 11.60	3.00 3.00	5.00 2.40	Cracked Corn, Cracked Kafir Corn, Cracked Feed Wheat, Millet, Lin- seed Oil Cake.....	Ingredients as guaranteed.
395		Sugarine Dairy Feed.....	Claimed Found	16.50 18.00	3.50 4.50	12.00 11.25	Molasses, Cotton Seed Meal, Gluten Feed, Ground and Bolted Grain Screenings, Clipped Oat By-pro- duct, Linseed Meal and Salt.....	Ingredients as guaranteed.
459		Sugarine Alfalfa Horse Feed.....	Claimed Found	11.00 12.70	2.50 2.90	12.00 11.10	Molasses, Alfalfa, Cracked Corn, Lin- seed Meal, Rolled Oats, Rolled Bar- ley, Recleaned Grain Screenings, Salt.....	Ingredients as guaranteed.
106	SWIFT & CO., CHICAGO, ILL.	Swift's Digester Tankage.....	1913 Claimed Found	60.00 58.00	8.00 9.25	3.00 3.50	Meat Residue.....	3.42% Phosphate. Ingredients as guaranteed.
291		Swift's Meat Scraps.....	Claimed Found	50.00 58.20	8.00 12.65	3.00 1.50	Meat Residue.....	Ingredients as guaranteed.
19	TENNESSEE FIBRE CO., MEMPHIS, TENN.	Cremo Brand Cotton Seed Feed Meal.....	1913 Claimed Found	20.00 23.85	5.00 4.20	22.00 20.30	Choice Cotton Seed Meal, Cotton Seed Hull Bran.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein		Crude Fat		Crude Fiber		Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		
231	THOMPSON AND COMPANY, PITTSBURGH, PA. Oil Meal.....	1913 Claimed Pound	30.00 32.25	5.50 7.05	11.00 8.35				Oil Meal (Linseed).....	Ingredients as guaranteed.
71	TOLEDO GRAIN & MILLING CO., THE, TOLEDO, OHIO. Camp's M. D. Chop Feed.....	1913 Claimed Pound	7.00 8.55	3.00 3.36	9.00 6.75				White or Yellow Corn, Oats, Middlings, Oat Groats and Oat Hulls.....	Ingredients as guaranteed.
78	Camp's No. 2 White Middlings.....	Claimed Pound	12.00 16.45	4.00 4.80	6.00 6.40				Wheat Middlings, Fine White Corn Meal.....	Ingredients as guaranteed.
81	Camp's Little Wonder Chop Feed.....	Claimed Pound	7.00 8.69	3.00 4.03	9.00 7.50				White or Yellow Corn, Oats, Oat Middlings, Oat Groats, Oat Hulls.....	Ingredients as guaranteed.
261	Camp's Scratch Feed.....	Claimed Pound	10.00 9.30	2.50 3.15	5.00 2.25				Cracked Corn, Whole Wheat, Kaffir Corn, Barley, Oats, Buckwheat, Sunflower seed, 24% Grit, 1 1/2% Oyster Shell, 1% Charcoal.....	Ingredients as guaranteed.
273	Camp's C. O. & B. Chop Feed.....	Claimed Pound	7.00 8.25	3.50 3.80	8.00 7.55				White Corn, Oats, Barley, Oat Middlings, Oat Groats, Oat Hulls.....	Ingredients as guaranteed.
409	TRANCHANT & FINNELL, OSBORNE, O. "Noxall" Bran.....	1913 Claimed Pound	14.00 16.05	3.50 4.30	5.40 7.05				Wheat Bran and Wheat Screenings.....	Ingredients as guaranteed.
192	TRILLING & CO., H., CHICAGO, ILL. Ground Flax Seed.....	1913 Claimed Pound	24.00 24.70	32.00 34.70	8.00 3.70				Ground Flax Seed.....	Ingredients as guaranteed.
211	TURNER BROTHERS CO., THE, BREMEN, OHIO. Turner's Chop Feed.....	1913 Claimed Pound	10.00 10.05	4.50 4.40	6.00 3.30				Corn, Oats, Corn Bran, Germ Meal, Screenings.....	Ingredients as guaranteed.

449	TUSCARAWAS CEREAL MILLS, TUSCARAWAS, OHIO.	1913 Claimed Pound	7.00 11.15	4.00 2.95	11.00 10.00	Ear Corn, Oats Screenings, Corn Bran.....	Ingredients as guaranteed.
98	UBIKO MILLING CO., THE, CINCINNATI, OHIO.	1913 Claimed Pound	16.00 19.30	6.00 6.80	9.00 8.85	Wheat Middlings, Hominy Meal, Wheat Bran, Brewers' Dried Grains, Old Process Linseed Meal.....	Contains Oat Hulls.
122	Union Grains, Ubiiko, Biles Ready Dairy Ration	Claimed Pound	24.00 24.65	7.00 6.25	9.00 10.15	Fourx Distillers' Dried Grains, Choice Cotton Seed Meal, Old Process Linseed Meal, White Wheat Midds., Winter Wheat Bran, Hominy Meal, Barley, Malt Sprouts, 1% Fine Table Salt.....	Ingredients as guaranteed.
235	Fourx (XXXX) Distillers' Dried Grains.....	Claimed Pound	31.00 29.80	12.00 10.20	13.00 8.35	Distillers' Dried Grains.....	Ingredients as guaranteed.
37	UNITED STATES SUGAR FEED CO., MILWAUKEE, WIS.	1913 Claimed Pound	13.00 13.50	3.00 6.10	12.00 12.05	Cotton Seed Meal, Molasses, Oat Clippings, Flax Plant By-product, Ground and Bolted Grain Screenings, small per cent. of Salt.....	Ingredients as guaranteed.
329	WADSWORTH FEED CO., THE, WARREN, OHIO.	1913 Claimed Pound	18.00 19.70	4.00 2.75	10.00 8.80	Malt Sprouts, Distillers' Dried Grains, Corn Meal, Alfalfa Meal, Oil Meal, Cotton Seed Meal, Salt, Molasses.....	Ingredients as guaranteed.
339	Superior Horse Feed.....	Claimed Pound	11.00 10.20	5.00 3.55	10.00 4.80	Cracked Corn, Oats, Bran, Alfalfa Meal, Oil Meal, Salt, Molasses.....	Ingredients as guaranteed.
368	Barley Sprouts.....	Claimed Pound	25.00 28.40	1.00 1.60	14.00 12.00	From Barley.....	Ingredients as guaranteed.
411	WALSH MILLING CO., CUYAHOGA FALLS, OHIO.	1913 Claimed Pound	10.50 11.80	3.10 4.50	5.00 4.70	Wheat, Corn, Kafir Corn, Buckwheat, Sunflower Seeds.....	Ingredients as guaranteed.

TABULATED ANALYSES OF FEED STUFFS—Concluded.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found	Crude Protein	Crude Fat	Crude Fiber	Ingredients Guaranteed.	Chemist's Findings of Ingredients.
			Per Cent.	Per Cent.	Per Cent.		
225	WEISS ALFALFA STOCK FOOD CO., THE OTTO, WICHITA, KAN. Pure Dustless Alfalfa Meal	1913 Claimed Found	14.00 15.00	1.50 1.80	30.00 30.05	Alfalfa Hay	Ingredients as guaranteed.
57	WESTERN GRAIN PRODUCTS CO., HAMMOND, IND. Hammond Dairy Feed	1913 Claimed Found	16.50 18.55	3.50 4.90	11.00 11.80	Cotton Seed Meal, Distillers' Grains, Malt Sprouts, Ground Clipped Oat By-product, Ground Corn, Oats, Barley, Wheat Screenings, Mo- lasses, 3/10 of 1% Salt	Ingredients as guaranteed.
400	Chicago Alfalfa Horse & Mule Feed	Claimed Found	10.00 13.85	3.00 1.90	15.00 11.35	Corn, Oats, Alfalfa, Linseed Meal, Molasses	Ingredients as guaranteed.
151	WEISHEIMER BROS., COLUMBUS, O. Weisheimer's Chop Feed	1913 Claimed Found	8.00 10.05	3.75 5.15	5.00 3.55	Corn, Oat and Corn Bran	Ingredients as guaranteed.
140	WEISHEIMER, E. & A., CLINTONVILLE, OHIO. Ideal Poultry Food (Scratch Size)	1913 Claimed Found	10.55 11.20	4.40 3.30	4.05 2.40	Cracked Corn, Wheat, Kaffir Corn, Barley, Oats, Buckwheat, Sun- flower Seeds, Field Seeds	Ingredients as guaranteed.
200	Ideal Poultry Food (Chick Size)	Claimed Found	10.55 11.40	4.40 3.80	4.05 1.90	Corn Grits, Kaffir Corn, Milo Maize, Wheat, Field Seeds	Ingredients as guaranteed.
92	WHEELERSBURG MILLING CO., WHEELERSBURG, OHIO. Mill Feed	1913 Claimed Found	10.00 14.20	3.50 4.20	11.50 4.30	Wheat and Corn	Ingredients as guaranteed.

WUICHET FERTILIZER CO., THE, DAYTON, OHIO.		1913				Ingredients as guaranteed.	
56	Ground Beef Scraps.....	Claimed Found	50.00 59.45	10.00 16.15	1.00 1.65	Meat Scraps.....	
281	Stock Tankage.....	Claimed Found	40.00 43.80	10.00 11.00	5.00 2.15	Meat.....	Meat, Bone, Dirt and Vegetable Matter.

DANGER.

STOP! LOOK! LISTEN!

The following brands of feed stuffs are found to be two per cent or more below guarantee in crude protein or crude fat or two per cent or more above guarantee in crude fiber.

All samples have been retested and results confirmed.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuffs.	Claimed and Found.	Crude Protein.	Crude Fat.	Crude Fiber.
			Per Cent.	Per Cent.	Per Cent.
	ALLNEEDA MILLS COMPANY, EAST ST. LOUIS, ILL.	1913			
394	Jersey Sugar Feed.....	Claimed Found	10.00 8.80	3.00 0.60	20.00 19.20
	AMERICAN MAIZE OIL REFINING CO., INDIANAPOLIS, IND.	1913			
179	Malsina Germ Oil Meal.....	Claimed Found	18.00 19.25	8.00 6.80	3.00 5.75
	ARMOUR FERTILIZER WORKS, CHICAGO, ILL.	1913			
260	Armour's Meat Meal.....	Claimed Found	60.00 57.00	10.00 6.90	2.00 2.45
	BALTIC MILLS, J. & S. EMISON & CO., PROP., VINCENNES, IND.	1913			
244	Hominy Feed.....	Claimed Found	9.18 10.00	9.10 6.50	5.60 4.35
	BLUMER-SARTAIN PACKING CO., THE, COLUMBUS, OHIO.	1913			
152	"Ohio's Pride" Hog Tankage.....	Claimed Found	31.30 39.30	16.10 12.40	3.75 2.65
	BUCKEYE CEREAL CO., THE, MASSILLON, OHIO.	1913			
262	Buckey Chop.....	Claimed Found	8.00 7.75	3.50 3.00	8.50 14.10
	CANTON FEED & MILLING CO., THE, CANTON, OHIO.	1913			
348	No. 2 C. & O. Feed.....	Claimed Found	7.00 6.70	3.00 2.55	9.00 15.65
349	No. 1 C. O. & B. Feed.....	Claimed Found	10.00 8.00	3.50 2.75	6.00 11.20
350	No. 2 C. O. & B. Feed.....	Claimed Found	7.00 5.50	3.00 1.35	9.00 17.00
353	No. 1 C. & O. Feed.....	Claimed Found	8.00 6.20	3.50 2.20	7.00 14.65
	CLARKE BROS. & CO., PEORIA, ILL.	1913			
456	Empire State Dairy Feed.....	Claimed Found	30.00 33.55	12.00 8.80	12.00 11.35
	CONTINENTAL CEREAL CO., PEORIA, ILL.	1913			
104	Continental Gluten Feed.....	Claimed Found	29.00 28.05	12.50 9.25	10.50 8.20

STOP! LOOK! LISTEN!—Continued.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found.	Crude Protein.	Crude Fat.	Crude Fiber.
			Per Cent.	Per Cent.	Per Cent.
	DARLING & CO., CHICAGO, ILL.	1913			
328	Darling's High Protein Meat Scraps.....	Claimed Found	55.00 54.95	0.50 8.55	2.90
335	Darling's Standard Meat Scraps	Claimed Found	45.00 44.70	0.50 5.10	5.40
359	Darling's 40% Protein Digester Tankage.....	Claimed Found	40.00 42.50	0.50 1.35	4.95
	DAYTON GRAIN & HAY CO., DAYTON, OHIO.	1913			
158	Alfalfa Chop Feed.....	Claimed Found	10.00 9.90	5.00 2.80	5.00 7.85
	DEWEY BROTHERS CO., THE, BLANCHESTER, OHIO.	1913			
40	Eagle 3-D Grains.....	Claimed Found	30.00 27.25	10.00 12.25	13.00 8.75
	DEWINE CO. THE JOHN, YELLOW SPRINGS, OHIO.	1913			
423	Dewine's Chop Feed.....	Claimed Found	10.00 11.45	4.00 1.70	7.00 5.20
42	Dewine's Forcing Mash.....	Claimed Found	18.47 13.15	2.39 2.75	4.60 5.50
	DECKER PACKING CO., THE VAL, PIQUA, OHIO.	1913			
338	"Our Pride	Claimed Found	29.05 26.30	15.25 8.10	3.90 5.55
	DIXIE MILLS COMPANY, EAST ST. LOUIS, ILL.	1913			
295	Dixie Horse & Mule Feed.....	Claimed Found	12.00 9.45	4.00 1.75	9.00 10.25
	EARLY & DANIEL CO., THE, CINCINNATI, OHIO.	1913			
290	Sweet Coated Cerealia.....	Claimed Found	12.50 13.05	4.00 1.50	10.00 8.60
322	Alfalfa Ce-re-a-lia.....	Claimed Found	23.00 26.00	5.08 5.20	10.00 12.65
40	Ce-re-a-lia Chop.....	Claimed Found	12.50 15.05	4.25 3.00	10.00 13.05
	EDWARDS & LOOMIS CO. CHICAGO, ILL.	1913			
354	Harvest Horse Feed.....	Claimed Found	9.00 11.70	2.00 1.40	15.00 20.05
	FEED PRODUCTS MILLING CO. CHICAGO, ILL.	1913			
383	Eatall Horse Feed.....	Claimed Found	9.00 13.70	2.00 0.50	15.00 17.65
384	Eatall Meadow Feed.....	Claimed Found	10.00 12.70	5.00 0.45	26.00 17.60
	GEHRES BROS., PORTSMOUTH, OHIO	1913			
90	Wheat and Corn Bran Mixed.....	Claimed Found	13.60 13.60	4.00 4.60	10.80 14.50

STOP! LOOK! LISTEN!—Concluded.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Claimed and Found.	Crude Protein.	Crude Fat.	Crude Fiber.
			Per Cent.	Per Cent.	Per Cent.
	HENSON COTTON OIL MILLS, KANSAS CITY, MO.	1913			
6	Standard Choice Cottonseed Meal.....	Claimed Found	41.00 38.00	6.00 5.95	10.00 12.85
	HULSHIZER MILLING CO., THE, NEWARK, OHIO.	1913			
363	Chop Feed.....	Claimed Found	9.00 10.30	5.00 3.00	10.00 3.90
	INDIANA MILLING CO., TERRE HAUTE, IND.	1913			
129	Sterling Feed.....	Claimed Found	9.80 10.30	2.75 3.30	14.00 16.00
312	Holstein No. 2.....	Claimed Found	12.00 10.25	3.00 3.40	16.00 18.75
	INTERNATIONAL SUGAR FEED CO., MINNEAPOLIS, MINN.	1913			
80	International Special Dairy Feed	Claimed Found	15.00 15.75	3.50 5.75	12.00 14.30
282	International Hog Feed and Charcoal.....	Claimed Found	22.50 22.55	3.50 5.75	12.00 17.25
	JORDAN, A. M., CLEVELAND, OHIO.	1913			
298	W. & J. Alfalfa Stock Food.....	Claimed Found	10.15 16.65	4.00 1.95	12.00 11.95
	LACLEDE MILLS, ST. LOUIS, MO.	1913			
161	Blue Bell Sugar Feed.....	Claimed Found	16.00 13.75	3.00 2.80	12.00 11.85
	LYON-GREENLEAF, WAUSEON, OHIO.	1913			
457	Waseo Scratch Feed.....	Claimed Found	11.00 13.80	3.50 2.75	3.50 5.85
	MANSFIELD PACKING CO., THE, MANSFIELD, OHIO.	1913			
1	Tankage.....	Claimed Found	39.90 31.15	18.05 20.75	5.45 2.00
	MORRIS & COMPANY, CHICAGO, ILL.	1913			
156	Big Brand 60% Digester Tankage.....	Claimed Found	60.00 46.55	8.00 11.80	5.00 5.05
	RALSTON PURINA COMPANY, ST. LOUIS, MO.	1913			
289	Purina Dairy Feed.....	Claimed Found	16.50 18.75	3.00 3.25	15.00 18.10
	SCHMIDT & WALKER CO., THE, CINCINNATI, OHIO.	1913			
292	Snow King Chop.....	Claimed Found	11.81 11.05	8.93 6.60	4.82 5.20
	SWIFT & COMPANY, CHICAGO, ILL.	1913			
166	Swift's Digester Tankage.....	Claimed Found	60.00 58.00	8.00 9.25	3.00 3.50
	TRANCHANT & FINNELL, OSBORNE, OHIO.	1913			
409	"Noxall" Bran.....	Claimed Found	14.00 16.05	3.50 4.30	5.40 7.65

LIST OF FEED STUFFS LICENSED BUT NOT ANALYZED.**LIST OF FEED STUFFS PROPERLY LICENSED.**

And offered for Sale in Ohio during 1913, but Samples of Which were not Found by the Division of Agriculture or its Deputies on the Market, Hence They Have Not Been Analyzed.

MANUFACTURERS' CLAIMS.

Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Crude Protein.	Crude Fat.	Crude Fiber.
ALLNEEDA MILLS COMPANY, EAST ST. LOUIS, ILL. Allneeda Poultry Feed—Scratch Size.....	10.00	3.00	4.00
AMERICAN COTTON OIL CO., THE, NEW YORK, N. Y. Red Tag Cotton Seed Meal.....	38.55	7.00	11.50
AMERICAN LINSEED CO., CHICAGO, ILL. Cleveland Linseed Oil Meal.....	36.00	2.00	9.00
AMERICAN COTTON HULL & FIBRE CO., MEMPHIS, TENN. Cyclone Feed Meal.....	20.00	3.00	23.00
AMERICAN MILLING COMPANY, PEORIA, ILL. Sucrene Chick Feed, with 5% Grit.....	10.00	3.00	5.00
AMENDT MILLING CO., MONROE, MICH. Amco Pigeon Feed.....	10.00	2.50	5.00
BADENOCH CO., J. J., CHICAGO, ILL. C-er-lay Poultry Feed, with Grit.....	9.50	2.50	5.00
BARTLETT CO., THE J. E., JACKSON, MICH. Bartlett's Malt Sugar Grains.....	25.00	6.00	12.00
BERDAN & COMPANY, TOLEDO, OHIO. Old Tavern Chick Feed.....	10.00	2.50	5.00
BOTZUM BROS., DELPHOS, OHIO. Crown Scratch Feed.....	10.04	2.60	8.50
BRODE AND COMPANY, F. W., MEMPHIS, TENN. Dove Brand Cotton Seed Meal.....	38.62	6.00	10.00
BROWN, PETER, RUSHTOWN, OHIO. Mixed Feed.....	2.15	8.80	17.60
CHAMPION FEED MILLING CO., LYONS, IOWA. Champion Molasses Feed.....	11.00	2.00	8.00
CHAPIN & CO., HAMMOND, IND. Green Diamond Brand Cottonseed Meal.....	41.00	8.00	10.00
CENTRAL MFG. COMPANY, LOCKLAND, OHIO. Equity Refined Hog Protein.....	40.00	1.00	8.00
CLEVELAND PROVISION CO., THE, CLEVELAND, O. Premium Blood Meal.....	79.00	0.75	1.00
CLINTON SUGAR REFINING CO., CLINTON, IOWA. Clinton Gluten Feed.....	20.00	3.00	8.00
DARLING & CO., CHICAGO, ILL. Darling's Mash Food.....	18.00	3.50	10.00
EDWARDS & LOOMIS CO., CHICAGO, ILL. Cackle Fine Chick Feed with Grit.....	9.50	2.50	5.00
FEEDERS SUPPLY CO., KANSAS CITY, MO. "Equity Brand" Cotton Seed Meal.....	41.00	7.00	8.00
FERGER GRAIN CO., THE, CINCINNATI, OHIO. Park Scratch Feed.....	10.00	3.00	5.00
GERMAN-AMERICAN SUGAR CO., BAY CITY, MICH. Dried Beet Pulp.....	8.00	0.50	20.00

LIST OF FEED STUFFS LICENSED BUT NOT ANALYZED—Continued.

Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Crude Protein.	Crude Fat.	Crude Fiber.
GOFF-KIRBY COAL COMPANY, THE, CLEVELAND, OHIO. No. 8 Chick Feed.....	10.50	4.50	4.00
HAMLIN & CO., DWIGHT E., PITTSBURGH, PA. H. & S. Alfalfa Feed (milch cows).....	20.00	4.00	16.00
HUBINGER BRO.'S COMPANY, J. C., KEOKUK, IOWA. K. K. K. Gluten Feed.....	23.50	2.40	7.50
HUNTER & CO., O. L., CHICAGO, ILL. Calumet Hominy Feed.....	8.50	7.00	10.00
INTERNATIONAL SUGAR FEED CO., MINNEAPOLIS, MINN. International Dairy Feed.....	18.00	3.50	12.00
International Cattle Feed.....	25.00	5.00	10.00
International Poultry Feed.....	10.00	3.50	5.00
KERN & SONS, JOHN B. A., MILWAUKEE, WIS. Eagle Hominy Feed.....	10.00	6.75	4.00
KORNFALFA FEED MILLING CO., KANSAS CITY, MO. Kluk Scratch Feed.....	10.00	3.25	4.50
Kay Molasses Feed.....	8.00	1.50	17.00
KRAUSE MILLING CO., CHAS. A., MILWAUKEE, WIS. Badger Pancy Mixed Feed.....	12.50	4.00	9.00
Badger Horse Feed.....	11.00	2.00	12.00
LANIER BROS., NASHVILLE, TENN. "Jersey" Brand Cotton Seed Meal.....	38.62	6.00	10.00
"Canary" Brand Cotton Seed Meal.....	41.00	6.00	10.00
MAYFLOWER MILLS, PORT WAYNE, IND. Corn & Oat Chop Feed.....	10.00	5.00	6.00
Old Process Oil Cake Meal.....	30.00	8.00	9.00
Admiral Chick Feed.....	10.00	2.50	2.50
MILWAUKEE GRAIN & FEED CO., MILWAUKEE, WIS. "Crown" Brewers' Dried Grain.....	25.00	5.00	15.00
MILWAUKEE STOCK FEED COMPANY, MILWAUKEE, WIS. Blue Ribbon Poultry Feed.....	10.00	2.50	5.00
NATIONAL FEED CO., ST. LOUIS, MO. Pure Hominy Feed (Kiln Dried).....	8.50	7.00	10.00
NICKEL PLATE MILLING CO., THE, PAINESVILLE, OHIO. Nickel Plate Hominy.....	10.25	6.00	6.00
NOBLESVILLE MILLING CO., NOBLESVILLE, IND. N. M. Co.'s Wheat Bran & Screenings.....	14.50	3.70	8.00
N. M. Co.'s Middlings.....	15.00	4.00	7.00
NORTHERN ILLINOIS CEREAL COMPANY, LOCKPORT, ILL. Peru Corn and Oat Feed.....	8.00	3.50	12.00
Gold Medal Poultry Food.....	9.00	2.50	10.00
NORTH-WEST MILLS CO., WINONA, MINN. Sugarota Dairy Feed.....	16.50	3.50	14.00
NORTHWESTERN ELEVATOR & MILL CO., THE, MT. VERNON, O. Dried Beet Pulp.....	8.00	4.10	6.00
OMAHA ALFALFA MILLING CO., OMAHA, NEB. Perfection Horse Feed.....	10.00	2.00	12.00
PARK AND POLLARD CO., THE, BOSTON, MASS. Screened Scratch Feed.....	10.00	3.50	5.00
Intermediate Chick Feed.....	10.00	3.50	5.00
Red Ribbon Chick.....	10.00	3.50	5.00
Gritless Chick Feed.....	11.00	3.50	5.00
PETERS MILL CO., M. C., OMAHA, NEB. Peters' Alfalfa Sugar Meal.....	10.00	0.50	26.00
Peters' Alfalfa Queen Dairy Feed.....	17.50	3.00	12.00
PFEFFER MILLING COMPANY, LEBANON, ILL. Hominy Feed.....	11.00	9.00	4.00

LIST OF FEED STUFFS LICENSED BUT NOT ANALYZED—Concluded.

Name and Address of Person, Firm or Corporation and Name of Feed Stuff.	Crude Protein.	Crude Fat.	Crude Fiber.
POAGE MILLING CO., R. C., ASHLAND, KY. Ideal Meal Feed.....	12.94	4.65	6.05
PURITAN-AMERICAN MANUFACTURING CO., NEW YORK, N. Y. Puritan Chick Food.....	12.50	7.10	6.00
PURITY-OATS CO., KEOKUK, IOWA. Purity Reground Oat Hulls.....	6.73	2.71	32.65
QUAKER OATS COMPANY, THE, CHICAGO, ILL. ■ Sterling Scratch Feed.....	10.00	2.50	5.00
■ Purity Hen Feed.....	10.00	2.50	5.00
■ Sterling Chick Feed.....	10.00	2.50	5.00
■ Purity Chick Feed.....	10.00	2.50	5.00
■ Blue Ribbon Chick Feed.....	10.00	2.50	5.00
■ Sweet Green Horse Feed.....	10.00	2.50	12.00
ROBERTS COTTON OIL CO., CAIRO, ILL. Diamond "R" Cottonseed Meal.....	40.00	6.00	10.00
SCHAFFNER BROS. CO., ERIE, PA. Blood Meal.....	40.00	18.00	22.00
SCHLITZ BREWING CO., JOS., MILWAUKEE, WIS. Schlitz Purity Dried Grains.....	24.00	6.00	16.00
SHEETS BROS. ELEVATOR CO., THE, CLEVELAND, OHIO. S B Special Pigeon Feed.....	10.00	3.50	5.00
SHEPARD CO., O. C., MEDINA, OHIO. Shepard's Chick Feed.....	10.50	3.50	3.00
SHIFREN & CO., YOUNGSTOWN, OHIO. Hominy Feed.....	11.25	8.50	4.00
STANDARD TIN PLATE CO., CANONSBURG, PA. Refuse Palm Oil Middlings.....	16.17	8.00	8.50
SUGARINE COMPANY, PEORIA, ILL. Sugarine Horse Feed.....	10.00	2.50	12.00
Mixing Feed.....	12.00	2.50	12.00
SULZBERGER & SONS CO., CHICAGO, ILL. Sulsberger's High Protein Tankage.....	60.00	8.00	1.00
TOLEDO ELEVATOR CO., INDIANAPOLIS, IND. Star Feed.....	7.00	5.50	12.50
UBIKO MILLING COMPANY, THE, CINCINNATI, OHIO. Goodrich Distillers' Dried Grains.....	27.00	8.00	14.00
UNITED STATES STOCK FOOD CO., KANSAS CITY, MO. Eagle Brand Horse & Mule Feed.....	10.00	3.00	10.00
WAGONER MILLING COMPANY, THE, TOLEDO, OHIO. Wagoner's Chop.....	10.00	5.00	4.00
WELLINGTON FLOUR MILLS, WELLINGTON, OHIO. Oil Middlings.....	17.00	7.00	7.00

RESULTS OF OFFICIAL CHEMIST'S EXAMINATION OF ANIMAL AND POULTRY REGULATORS, CONDI- TIONERS, TONICS, ETC.

Samples gathered during 1913.

All Examinations made by Ohio State University Chemist, Columbus, Ohio.

Record Number.		Ingredients.	Remarks.
C-4	ALBUMA CHEMICAL CO., THE, COLUMBIANA, O. Dr. C. K. Hisey's Albuma.....	Lime, Sulphur, Epsom Salts.....	Ingredients as guaranteed.
C-32	BARKER, MOORE & MEIN MEDICINE CO., THE, PHILADELPHIA, PA. Barker's Horse, Cattle & Poultry Medicinal Powder.....	Gentian, Penugreek, African Ginger, Pennyroyal, Herb, Cascara Sagrada, Charcoal, Saltpetre, Sulphate of Iron, Sulphur, Rosin, Salt, Lin- seed Cake Meal.....	Ingredients as guaranteed.
C-37	BARWELL, J. W., WAUKE- GAN, ILL. Blatchford's Genuine Old English Tonic & Animal Regulator.....	Penugreek, Gentian Iron Sulphate, Sodium Sulphate, Sodium Chloride, Anise, Ginger, Licorice, Sarsaparilla, Sulphur, Charcoal, Peruvian Bark, Locust Bean, Flour, Seeds, Lentils and Flaxseed....	Ingredients as guaranteed.
C-40	BEE DEE STOCK MEDICINE CO., CHATTANOOGA, TENN. Bee Dee Stock & Poultry Medicine.	Senna, Rosemary, Uva Ursi, Guaiak, Rosin, Penugreek, Sulphur, Salt.....	Ingredients as guaranteed.
C-44	BLACKMAN STOCK REMEDY CO., CHATTA- NOOGA, TENN. Char-Med-Sal.....	Dairy Salt, Charcoal, Sulphur, Saltpetre, Sulphate of Iron, (Copperas), Nux Vomica.....	Ingredients as guaranteed.
C-21	BUCKEYE COMPANY, THE LORAIN, OHIO. Buckeye Salt Tonic.....	Ginger Root, Gentian Root, Sassafras Bark, Slippery Elm Bark, Powdered Charcoal, Blood Root, Licorice Root, Penugreek Seed, Aniseed, Nux Vomica, Sulphate of Iron, Sulphur.....	Ingredients as guaranteed.
C-5	BURKY, A. C., SUGAR CREEK, OHIO. Burky's Cow Powder.....	Gentian, Glauber Salts, Caraway Seed, Sulphur.....	Ingredients as guaranteed.

RESULTS OF OFFICIAL CHEMIST'S EXAMINATION OF ANIMAL AND POULTRY REGULATORS, CONDITIONERS, TONICS, ETC.—Continued.

Record Number.		Ingredients.	Remarks.
	CLYDE REMEDY CO., CLYDE, OHIO.		
C-36	Car-Bo-Sal.....	Sodium Chloride, Carbo Ligni, Sugar of Iron, Sulphur, Sodium Hyposulphite, Soda Ash.....	Ingredients as guaranteed.
	CONKEY CO., THE G. E., CLEVELAND, OHIO.		
C-31	Conkey Laying Tonic.....	Quassia, Mustard, Salt, Sul- phur, Sulphate of Iron, Sodium Sulphate, Calcium Carbonate, Charcoal, Iron Oxide, Sodium Hyposulphite....	Ingredients as guaranteed.
C-28	Conkey's Poultry Tonic.....	Bone Ash, Quassia, Iron Sul- phate, Red Bark, Ginger, Sulphur, Glauber, Salt, Bi- Carb. of Soda, Saltpeter, Burnt Umber, Mustard, Salt, Fenugreek.....	Ingredients as guaranteed.
C-38	Conkey's Stock Tonic.....	Nux Vomica, Ginger, Gentian, Quassia, Sulphur, Sulphate of Iron, Bi-carb. of Soda, Saltpeter, Cascara Sagrada, Fenugreek, Venetian Red, Glaubers Salt, Charcoal.....	Ingredients as guaranteed.
	DANIELS, INC., DR. A. C., BOSTON, MASS.		
C-41	Dr. A. C. Daniels' Horse Reno- vator Powders.....	Poplar Bark, Princess Pine, Elicampagne Root, Lobelia, Yellow Dock Root, Gentian, Anise Seed, Saltpeter, Bi- carbonate of Soda, Sassa- fras Bark, Coriander Seed, Licorice, Af. Ginger, Stil- lingia, Fenugreek Seed.....	Ingredients as guaranteed.
	FEDERAL STOCK FOOD CO., MIFFLINBURG, PA.		
C-23	Federal Stock Tonic.....	Charcoal, Horse Medley, Anise Seed, Fenugreek, Gentian, Cayenne Pepper, Flour Sul- phur, Epsom Salts, Copperas, Mustard Cake Meal, Sassa- fras Bark, Buckwheat Shorts..	Ingredients as guaranteed.
C-24	Federal Poultry Food (a Tonic)....	Hydrate of Lime, Pulverized Limestone for Grit, Anise Seed, Fenugreek, Venetian Red, Cayenne Pepper, Cop- peras, Sassafras Bark, Oyster Shells, Buckwheat Shorts, Mustard Cake Meal, Black Pepper.....	Ingredients as guaranteed.
	FEIL COMPANY, THE S. R., CLEVELAND, OHIO.		
C-43*	"Sal Vet".....	Iron, Calcium, Sodium Sul- phate, Chloride, Tobacco, Charcoal.....	Ingredients as guaranteed.

* See Notation on Page 751.

RESULTS OF OFFICIAL CHEMIST'S EXAMINATION OF ANIMAL AND POULTRY REGULATORS, CONDITIONERS, TONICS, ETC.—Continued.

Record Number.		Ingredients.	Remarks.
	FLECK, J. J., TIFFIN, OHIO.		
C-25	Fleck's Poultry Powder.....	Penugreek, Sassafras, Sage Leaves, Bay Berry Bark, Venetian Red, Cayenne Pepper, Bi-Carbonate of Soda, Sulphate of Magnesia, Mustard Bran, Bone Meal, Oyster Shells.....	Ingredients as guaranteed.
C-39	Fleck's Stock Powder.....	Gentian, Ginger, Penugreek, Sulphur, Charcoal, Saltpeter, (Nitrate) Sulphate of Magnesia, Sodium Chloride, Bicarbonate of Soda, Sulphate of Iron.....	Ingredients as guaranteed.
	GOLD MEDAL STOCK FOOD CO., PERRYVILLE, O.		
C-20	Gold Medal Stock Tonic.....	Quassia, Penugreek, Gentian, Calamus, Charcoal, Sulphate of Iron, Sulphur, Linseed Meal, Salt.....	Ingredients as guaranteed.
	HERB MEDICINE CO., THE, SPRINGFIELD, OHIO.		
C-15	Lightning Horse, Cattle and Poultry Powders.....	Penugreek, Sulphur, Saltpetre, Epsom Salts, Rosin, Flaxseed Meal, Oil Cake Meal.....	Ingredients as guaranteed.
	HESS & CLARK, DR., ASHLAND, OHIO.		
C-2	Dr. Hess Poultry Pan-a-ce-a.....	Quassia, Nux Vomica, Potassium Nitrate, Calcium Carbonate, Sodium Hypo-sulphite, Sodium Chloride, Iron Sulphate, Iron Oxide, Wheat Middlings.....	Ingredients as guaranteed.
C-13	Dr. Hess Stock Tonic.....	Quassia, Nux Vomica, Charcoal, Potassium Nitrate, Sodium Sulphate, Magnesium Sulphate, Sodium Chloride, Iron Sulphate, Penugreek, Wheat Middlings.....	Ingredients as guaranteed.
C-14	Dr. Hess Hog Worm Powder.....	Quassia, Nux Vomica, Charcoal, Potassium Nitrate, Sodium Sulphate, Magnesium Sulphate, Sodium Chloride, Iron Sulphate, Penugreek, Areca Nut, Wheat Middlings.....	Ingredients as guaranteed.
	HOLLAND STOCK REMEDY CO., THE, WELLINGTON, OHIO.		
C-42	Medicated Stock Salt.....	Sodium Chloride, Quassia, Combined Sulphur, Powered Bark, Iron, Charcoal Specially Prepared, Kamala, Salix, Soda Hyposulphite, Powered Worm Seed, Powered Areca Nut, Santonin.....	Ingredients as guaranteed.

RESULTS OF OFFICIAL CHEMIST'S EXAMINATION OF ANIMAL AND POULTRY REGULATORS, CONDITIONERS, TONICS, ETC.—Continued.

Record Number.		Ingredients.	Remarks.
	INTERNATIONAL STOCK FOOD CO., MINNEAPOLIS, MINN.		
C-6	International Medicinal Stock Food Tonic.....	Gentian, Mustard, Ginger, Licorice, Capsicum, Charcoal, Magnesium Carbonate, Cinchona Bark, Rosin Weed, Columbo, Elecampane, Anise Seed, Salt, Poplar Bark.....	Ingredients as guaranteed.
C-7	International Medicinal Poultry Food Tonic.....	Sassafras, Gentian, Copperas, Calcium, Carbonate, Ginger, Capsicum, Charcoal, Magnesium Carbonate, Poplar Bark, Mustard.....	Ingredients as guaranteed.
	KARBRAK CHEMICAL CO., INC., WELLSBORO, PA.		
C-8	KiniTenik.....	Boneset, Nux Vomica, Copperas, Sulphur, Soda Bi-carbonate, Capsicum, Ginger, Sassafras, Calamus, Juniper Berries, Salt-petre, Licorice, Epsom Salts, Aloes, Fenugreek, Gentian.....	Ingredients as guaranteed.
C-9	Poultry Tonic.....	Oyster Shells, Lime, Fenugreek, Red Oxide, Sulphur, Capsicum, Black Pepper, Nux Vomica, Middlings.....	Ingredients as guaranteed.
C-10	Hog Remedy.....	Worm Seed, Aloes, Copperas, Sulphur, Sodium Chloride, Soda Bi-carbonate, Soda Sulphite, Charcoal Middlings.....	Ingredients as guaranteed.
	LAPE'S VETERINARY CO., DR., ADRIAN, MICH.		
C-26	Dr. Lape's Medicated Stock Salt.....	Sodium Chloride, Carbo Ligni, Ferri Sulphas Exsiccatus, Trigonella Foenum Graecum.....	Ingredients as guaranteed.
	MUTUAL MEDICAL CO., THE, CANTON, OHIO.		
C-27	Mutual Poultry Powder.....	Carbonate of Iron, Capsicum, Bi-carbonate of Soda, Sulphur, Black Pepper, Ginger, Sodium Chloride, Mustard, Black Antimony, Fenugreek, Linseed Meal, Cotton Seed Meal, Wheat Meal.....	Ingredients as guaranteed.
	OHIO STOCK CONDITIONER CO., MILLERSBURG, O.		
C-11	Perfection Egg Maker & Poultry Panacea.....	Nux Vomica, Fenugreek, Capsicum, Sulphate of Iron, Gentian Root, Charcoal, Sodium Chloride, Granulated Bone.....	Ingredients as guaranteed.

RESULTS OF OFFICIAL CHEMIST'S EXAMINATION OF ANIMAL AND POULTRY REGULATORS, CONDITIONERS, TONICS, ETC.—Continued.

Record Number.		Ingredients.	Remarks.
	OHIO STOCK CONDITIONER CO., MILLERSBURG, O. —Concluded.		
C-12	Ohio Stock Conditioner.....	Nux Vomica, Gentian Root, Mandrake Root, Horse Medley, Juniper Berries, Licorice Root, Sulphur, Sulphate of Magnesia, Exsiccated Sulphate of Iron, Bicarbonate of Soda.....	Ingredients as guaranteed.
C-22	Hog Special.....	Exsiccated Sulphate of Iron, Quassia, Mandrake Root, Licorice Root, Bi-carbonate of Soda, Sulphate of Magnesia, Juniper Berries, Sulphur, Charcoal.....	Ingredients as guaranteed.
	PRATT FOOD COMPANY, PHILADELPHIA, PA.		
C-16	Pratt's Animal Regulator.....	Caraway, Gentian, Ginger, Fenugreek, Salt, Elecampane, Mandrake, Charcoal, Cascarella, Bitter-Sweet, Golden Seal, Blood Root, Dandelion, Ground Cereals.....	Ingredients as guaranteed.
C-17	Pratt's Conditioner for Horses & Cattle.....	Ginger, Golden Seal, Fenugreek, Caraway, Gentian, Elecampane, Mandrake, Salt, Cascarella, Bitter Sweet, Ground Cereals, Blood Root, Dandelion.....	Ingredients as guaranteed.
C-19	Pratt's Poultry Regulator.....	Sassafras Bark, Gentian, Fenugreek, Sulphur, Pepper, Ginger, Caraway, Red Peruvian Bark, Sub-Carbonate Iron Shell Meal, Oxide of Iron, Ground Cereals.....	Ingredients as guaranteed.
C-35	Pratt's Cow Tonic.....	Cinchona, Nux Vomica, Gentian, Charcoal, Cascarella, Fenugreek, Salt, Ground Cereals, Oxide of Iron, Ginger..	Ingredients as guaranteed.
	THE RINGMASTER STOCK FOOD CO., CLEVELAND, OHIO.		
C-3	Ringmaster Stock Tonic.....	Salt, Linseed Meal, Charcoal, Calamus, Quassia, Gentian, Fenugreek, Sulphate of Iron, Powdered Sulphur.....	Ingredients as guaranteed.
	TALBOTT CHEMICAL CO., THE W. R., SANDUSKY, OHIO.		
C-1	Sal-Medico.....	Sodium Chloride, Bi-carbonate Soda, Sulphur, Water, Tobacco, Calcium Oxide, Ferrous Sulphate, Charcoal, Magnesium Sulphate.....	Ingredients as guaranteed.

RESULTS OF OFFICIAL CHEMIST'S EXAMINATION OF ANIMAL AND POULTRY REGULATORS, CONDITIONERS, TONICS, ETC.—Concluded.

Record Number.		Ingredients.	Remarks.
	UNITED STATES FOOD CO., THE, PLEASANT CITY, OHIO.		
C-18	U. S. Poultry Food Tonic.....	Ginger, Sulphur, Epsom Salts, Venetian Red, Gentian Root, Penugreek, Salt, Copperas, Oil Meal, Flax Screenings.....	Ingredients as guaranteed.
C-29	U. S. Stock Food Tonic.....	Gentian Root, Blood Root, Ep- som Salts, Ginger, Sulphur, Poplar Bark, Licorice Root, Charcoal, Penugreek, Salt, Copperas, Oil Meal, Flax Screenings.....	Ingredients as guaranteed.
C-30	U. S. Animal Regulator.....	Charcoal, Copperas, Epsom Salts, Sulphur, African Gin- ger, Gentian Root, Worm Seed, Saltpeter, Salt, Oil Meal, Flax Screenings.....	Ingredients as guaranteed.
	ZOLFO REMEDY CO., THE, GLANDORF, OHIO.		
C-33	Zolfo's Great Poultry Remedy.....	Copperas, Sassafras, Gentian, Ginger, Capsicum, Asafoe- tida, Lime, Magnesium Car- bonate, Coal, Middlings, Sul- phur.....	Ingredients as guaranteed.
C-34	Zolfo's Great Stock Remedy.....	Rock Salt, Coal, Oil Meal, Copperas, Sulphur, Saltpeter, Rosin, Black Antimony.....	Ingredients as guaranteed.

* The S. R. Feil Company of Cleveland, after promising last December to furnish statement of ingredients of which "SAL VET" was composed, continued its sale without complying with the provisions of the law. Inspector, therefore, obtained upon the market samples of product labeled "SAL VET" and upon examination chemist reported same to contain ingredients as given on page 747.

LIST OF ANIMAL AND POULTRY REGULATORS, CONDI- TIONERS, TONICS, ETC., LICENSED BUT NOT ANALYZED.

And offered for Sale in Ohio during 1913, but Samples of which were not found by the Division of Agriculture or its Deputies on the Markets, hence they have not been analyzed.

	Manufacturers' Claims.
AMERICAN STOCK LIFE CO., THE, CLEVELAND, OHIO.	
"Stock-Life".....	Quassia, Charcoal, Gentian, Salt, Sulphate of Iron, Sulphur, Tobacco, Lamp Black.
CONKEY CO., THE G. E., CLEVELAND, OHIO.	
Conkey's Salt-Em.....	Salt, Venetian Red, Charcoal, Quassia, Gentian, Fenugreek, Tobacco, Sulphate of Iron, Sulphur, Glauber Salt, Water.
DANIELS, INC., DR. A. C., BOSTON, MASS.	
Dr. A. C. Daniels' Cow Invigorator.....	Poplar Bark, Epsom Salts, Salt, Spearmint, Nitre, Carbonate Iron, Elecampane Root, Af. Ginger, Pepper, Sulphur, Poke Root, Boneset, Asafoetida, Bone Meal, Gentian Root, Fenugreek Seed, Althaea, Peruvian Bark, Life Root, Queen of the Meadows, Water Pepper.
INDIANA HOG & CATTLE POWDER CO., INDIANAPOLIS, IND.	
Common Sense Stock Powder.....	Sodium Hyposulphite, Sodium Bicarbonate, Sodium Sulphate, Sodium Chloride, Sulphur, Sulphate of Iron, Charcoal.
McLAIN & SONS, DR., JEROMEVILLE, OHIO.	
Dr. McClain's Stock Conditioner.....	Ginger, Gentian, Nux Vomica, Sul. Iron, Chloride Sodium, Sul. Magnesia, Glaubers Salt, Charcoal, Capsicum, Flaxseed Meal, Quassia, Tobacco.
Dr. McClain's Poultry Spe-cif-ic.....	Ginger, Gentian, Nux Vomica, Sul. Iron, Chloride, Sodium, Sul. Magnesia, Glaubers Salt, Charcoal, Capsicum, Flaxseed Meal, Quassia, Tobacco, Ve- netian Red.
RIDGE STOCK FOOD CO., CABLE, OHIO.	
Vermi-Salz.....	Magnesium Sulphate, Iron Sulphate, Charcoal, Ni- trate Potash, Hyposulphite Soda, Worm Seed, Salt.
STYRON-BEGGS CO., THE NEWARK, OHIO.	
Great Seal Poultry Powder.....	Blk. Antimony, Sulphur, Rosin, Fenugreek, Cop- peras, Ground Flaxseed, African Ginger, Salt, peter, Gentian, Epsom Salts, Elecampane, Oyster Shells.
Great Seal Horse and Cattle Condition Powder.....	Saltpeter, Gentian, Sulphate of Magnesia, Elecam- pane, Farina, Mur. Soda, Licorice Root, Sulphur, Mandrake, Rosin, Fenugreek, Antimony, Sulphate Iron, Lini Farina, Bloodroot, Ginger.

LIST OF ANIMAL AND POULTRY REGULATORS, CONDITIONERS,
TONICS, ETC., LICENSED BUT NOT ANALYZED—Concluded.

	Manufacturers' Claims.
UTILITY SALT CO., WHEELING, W. VA. Dillon's Utility Stock Salt	Kiln Dried Salt, Extract of Hickory.
WATKINS' MEDICINE CO., THE J. R., WINONA, MINN. Watkins Stock Tonic	Gentian Root, Elecampane Root, Ginger Root, Mandrake Root, Cascara Sagrada Bark, Fenugreek Seed, Worm Seed, Anise Seed, Pumpkin Seed, Areca Nuts, Juniper Berries, African Capsicum, Standard Wheat Middlings, American Sulphur, Coriander Seed, Charcoal, Ground Linseed Meal, Sodium Chloride, Sodium Bicarbonate, Salt of Tartar, Sulphate of Iron.
Watkins' Poultry Tonic	Spanish Flies, African Capsicum, French Gentian Root, African Ginger, Venetian Red, American Sulphur, Standard Wheat Middlings, Native Ground Mussel Shells.

FEEDING STANDARDS.

By H. A. WEBER, *Chemist.*

PROBLEM OF EXPERIMENT STATIONS.

After the establishment of the German Experiment Stations one of the first problems attacked was the feeding of farm animals. The investigations undertaken in this direction resulted in the establishment of a rational system of feeding which next to soil fertility is of the greatest importance in the whole domain of agriculture.

The time, labor and money spent to secure this desirable end were simply enormous taken in the aggregate, since they had to embrace the following investigations:

INVESTIGATIONS EMBRACED.

1. The analysis of the whole mass of materials used in feeding.
2. The determination of the digestibility of the nutrients in each separate feeding stuff.
3. The proper amount of feed as well as the proper amounts and proportions of the various nutrients necessary for the greatest and most economical production of growth, flesh, fat, milk, wool and work.
4. Average digestible nutrients and fertilizing constituents in American feeding stuffs.

RESULTS ACCOMPLISHED.

This is not the place to consider in detail how these results were accomplished. The reader must be satisfied with the results, and these are given in brief to meet the demands made upon this Department by feeders, who are anxious to obtain some information in regard to the feeding standards of farm animals.

For this purpose three tables are submitted, which give the data for the preparation of proper rations to answer the requirements of farm animals in the various uses to which they are put; also gives fertilizing constituents.

TABLE I.

Table I is compiled from the most recent reports of experiment stations and manuals of cattle feeding and gives the number of pounds of digestible nutrients in 100 pounds of the respective feeding stuffs.

TABLE II.

Table II is taken bodily from Henry's Feeds and Feeding. As

this table is identical with that published in Mentzel & Lengerke's Landw Kalender, it no doubt represents the feeding standards of farm animals as determined by experiment up to date.

TABLE III.

Table III gives the digestible nutrients and fertilizing constituents in American feeding stuffs; is taken from Henry's Feeds and Feeding, who in turn secured a number of the results from Bulletin 22, Office of Experiment Station, United States Department of Agriculture and various other sources.

COMPOUNDING A RATION.

As an example for using the tables in compounding a ration, we will take the case of a milch cow giving about 16.6 pounds of milk per day. Suppose the feeder has the following feeding stuffs at command: average timothy hay, oat straw, corn silage and soy beans.

For the following weights of the feeding stuffs the corresponding weights of the digestible nutrients and dry matter are readily obtained from Table I:

	Dry Matter.	Protein.	Carbohydrates.	Fat.	Nutritive Ratio.
10 lbs. hay.....	8.60	.28	4.34	.14	
10 lbs. oat straw.....	9.10	.12	3.86	.08	
20 lbs. silage.....	4.20	.18	2.70	.04	
5 lbs. soy beans.....	4.45	1.45	1.11	.72	
45 lbs.....	26.35	2.03	12.01	.98	1:6.9
Standard Table II.....	27.0	2.00	11.00	.40	1:6.0

The ration thus compounded is a little high in fat, which also makes the nutritive ratio a little wider than the standard. But on the whole it may be considered near enough for all practical purposes.

Hence 10 pounds of hay, 10 pounds of oat straw, 20 pounds of corn silage and 5 pounds of soy beans make a suitable ration per 1,000 pounds live weight per day.

NUTRITIVE RATIO.

The nutritive ratio is found by dividing the sum of the digestible carbohydrates plus 2.4 times the digestible fat by the digestible protein.

TABLE I.

Average number of Pounds of dry matter and Digestible Nutrients in 100 Pounds of Principal Feeding Stuffs, with the Nutritive Ratio.

	Dry Matter.	Protein.	Fat.	Carbo-hydrates.	Nutritive Ratio.
Hay.					
	Lbs.	Lbs.	Lbs.	Lbs.	
Timothy, general average.....	86.	2.8	1.4	43.4	1:16.7
Timothy, cut in bloom.....	85.	3.4	1.7	43.6	1:14.0
Orchard grass.....	90.	4.9	1.4	42.3	1: 9.3
Red top.....	91.	4.8	1.0	46.9	1:10.2
Kentucky blue grass.....	79.	4.8	2.0	37.3	1: 8.7
Hungarian grass (millet).....	92.	4.5	1.3	51.7	1:12.1
Oat hay.....	91.	4.3	1.5	46.4	1:11.6
Soy bean hay.....	89.	10.8	1.5	38.7	1: 3.9
Red clover, poor.....	85.	5.7	1.0	37.9	1: 7.1
Red clover, medium.....	84.	7.0	1.2	38.1	1: 5.9
Red clover, good.....	83.	8.5	1.7	38.2	1: 5.
Red clover, excellent.....	83.	10.7	2.1	37.6	1: 4.
Crimson clover.....	90.	10.5	1.3	34.9	1: 3.5
Alfalfa, medium.....	84.	9.4	1.0	33.3	1: 3.2
Alfalfa, good.....	84.	12.3	1.0	31.4	1: 2.7
Cowpea.....	89.	10.3	1.1	33.6	1: 3.8
Straw.					
Wheat.....	90.	0.4	0.4	36.3	1:23.1
Rye.....	93.	0.6	0.4	40.6	1:29.1
Oat.....	91.	1.2	0.6	38.6	1:33.7
Barley.....	86.	0.7	0.6	41.2	1:20.9
Soy bean.....	90.	2.3	1.0	40.0	1:18.4
Pea-vine.....	86.	4.2	0.8	32.3	1: 7.9
Red clover.....	84.	4.2	1.0	28.5	1: 7.4
Corn stover.....	60.	1.7	0.7	32.4	1:23.9
Buckwheat.....	90.	2.0	0.7	37.7	1:19.7
Wheat chaff.....	86.	0.3	0.5	23.3	1:35.0
Oat chaff.....	86.	1.5	0.7	33.0	1:23.1
Green Fodder.					
Fodder corn.....	21.	1.0	0.4	11.6	1:12.5
Pasture grass.....	20.	2.5	0.5	10.2	1: 4.5
Kentucky blue grass.....	35.	3.0	0.8	19.8	1: 7.3
Timothy.....	38.	1.2	0.6	19.1	1:17.1
Orchard grass in bloom.....	27.	1.5	0.5	11.4	1: 8.4
Red top in bloom.....	35.	2.1	0.6	21.2	1:10.7
Oat fodder.....	38.	2.6	1.0	18.9	1: 8.1
Rye fodder.....	23.	2.1	0.4	14.1	1: 7.1
Sorghum.....	21.	0.6	0.4	12.3	1:21.9
Hungarian grass.....	29.	2.0	0.4	16.0	1: 8.4
Barley fodder.....	21.	1.9	0.4	10.2	1: 5.3
Red clover.....	29.	2.9	0.7	14.8	1: 5.6
Crimson clover.....	19.	2.4	0.5	9.1	1: 4.2
Alfalfa.....	28.	3.9	0.5	12.7	1: 3.5
Cowpea.....	16.	1.8	0.2	8.7	1: 5.1
Soy bean.....	25.	3.2	0.5	11.0	1: 3.8
Silage.					
Corn.....	21.	0.9	0.7	11.3	1:14.4
Clover.....	28.	2.0	1.0	13.5	1: 7.9
Sorghum.....	24.	0.6	0.2	14.9	1: 2.3
Alfalfa.....	28.	3.0	1.0	8.5	1: 4.3
Grass.....	32.	1.9	1.6	13.4	1: 9.0
Cowpea.....	21.	1.5	0.9	8.6	1: 7.1
Soy bean.....	26.	2.7	1.3	8.7	1:16.8
Roots and Tubers.					
Potato.....	21.	0.9	0.1	16.3	1:18.3
Sugar beet.....	14.	1.1	0.1	10.2	1: 9.4
Mangold.....	9.	1.1	0.1	5.4	1: 5.1
Turnip.....	9.	1.0	0.2	7.3	1: 7.5
Carrot.....	11.	0.8	0.2	7.8	1:10.3
Artichoke.....	20.	2.0	0.2	16.3	1: 8.6

TABLE I—Concluded.

	Dry Matter.	Protein.	Fat.	Carbo- hydrates.	Nutritive Ratio.
Grains.					
	Lbs.	Lbs.	Lbs.	Lbs.	
Dent corn.....	89.	7.8	4.3	66.7	1: 9.8
Flint corn.....	89.	8.0	4.3	66.2	1: 9.5
Sweet corn.....	91.	8.8	7.0	63.7	1: 9.1
Wheat.....	90.	10.2	1.7	69.2	1: 7.1
Rye.....	88.	9.9	1.1	67.6	1: 7.0
Barley.....	89.	8.7	1.6	65.6	1: 7.9
Oats.....	89.	9.2	4.2	47.3	1: 6.2
Rice.....	88.	4.8	0.3	72.2	1:15.1
Buckwheat.....	87.	7.7	1.8	49.2	1: 6.9
Seeds.					
Sorghum.....	87.	7.0	3.1	52.1	1: 8.5
Broom corn.....	86.	7.4	2.9	48.3	1: 7.8
Kaffir corn.....	85.	7.8	2.7	57.1	1: 8.1
Millet.....	86.	8.9	3.2	45.0	1: 5.8
Flax.....	91.	20.6	29.0	17.1	1: 3.7
Cotton.....	90.	12.5	17.3	30.0	1: 5.6
Sunflower.....	93.	12.1	29.0	20.8	1: 7.4
Soy bean.....	89.	29.6	14.4	22.3	1: 1.9
Cowpea.....	85.	18.3	1.1	54.2	1: 3.1
Mill Products.					
Spring wheat bran.....	89.	12.9	3.4	40.1	1: 3.7
Winter wheat bran.....	88.	12.3	2.6	37.1	1: 3.5
Wheat shorts.....	88.	12.2	3.8	50.0	1: 4.8
Wheat middlings.....	88.	12.8	3.4	53.0	1: 4.7
Wheat screenings.....	88.	9.3	2.2	51.0	1: 5.7
Rye bran.....	88.	11.5	2.0	50.3	1: 4.7
Rye shorts.....	91.	11.9	1.6	45.1	1: 4.1
Oat meal.....	92.	11.5	5.9	52.1	1: 5.7
Oat shorts.....	92.	12.5	2.8	46.9	1: 4.2
Rice bran.....	90.	5.3	7.3	45.1	1:11.8
Rice polish.....	90.	9.0	0.5	56.4	1: 8.0
Buckwheat bran.....	90.	7.4	1.9	30.4	1: 4.7
Buckwheat shorts.....	89.	21.1	5.5	35.5	1: 2.2
Buckwheat middlings.....	87.	22.0	5.4	35.4	1: 2.1
Corn bran.....	91.	7.4	4.6	59.8	1: 9.5
Dairy Products.					
Cow's milk.....	12.8	3.6	3.7	4.9	1: 3.8
Skim milk, gravity.....	9.6	3.1	0.8	4.7	1: 2.1
Skim milk, centrifugal.....	9.4	2.9	0.3	5.2	1: 2.0
Buttermilk.....	9.9	3.9	1.1	4.0	1: 1.7
Whey.....	6.6	0.8	0.3	4.7	1:87.0
Industrial By-Products.					
Linseed meal, old process.....	91.	29.3	7.0	32.7	1: 1.7
Linseed meal, new process.....	90.	28.2	2.8	40.1	1: 1.6
Cotton seed meal.....	92.	37.2	12.2	16.9	1: 1.2
Cocoanut meal.....	90.	15.6	10.5	38.3	1: 4.0
Palm-nut meal.....	90.	16.0	9.0	52.6	1: 4.6
Sunflower seed cake.....	92.	31.2	12.8	19.6	1: 1.6
Peanut meal.....	89.	42.0	6.9	22.8	1: 0.9
Gluten meal.....	92.	25.8	11.0	43.3	1: 2.7
Starch refuse.....	92.	11.4	6.5	58.4	1: 6.4
Malt sprouts.....	90.	18.6	1.7	37.1	1: 2.2
Brewers' grains, dried.....	92.	15.7	5.1	36.3	1: 3.0
Dried blood.....	91.	52.0	2.5		1: 0.1
Meat scrap.....	89.	66.0	13.7	0.3	1: 0.5
Waste Products.					
Oat hulls.....	90.	1.3	0.6	40.1	1:31.8
Buckwheat hulls.....	87.	2.1	0.6	27.9	1:13.9
Cotton-seed hulls.....	89.	0.3	1.7	33.1	1:123.9
Corn cob.....	89.	0.4	0.3	52.5	1:133.

TABLE II.

FEEDING STANDARDS FOR FARM ANIMALS.

Pounds of Dry Matter and Digestible Nutrients Per Day Per 1,000 Pounds Live Weight Together With Nutritive Ratio.

Animal.	Dry Matter.	Protein.	Fat.	Carbo-hydrates.	Nutritive Ratio.
	Lbs.	Lbs.	Lbs.	Lbs.	
1. Oxen.					
At rest in stall.....	18	0.7	8.0	0.1	1:11.8
At light work.....	22	1.4	10.0	0.3	1: 7.7
At medium work.....	25	2.0	11.5	0.5	1: 6.5
At heavy work.....	28	2.8	13.0	0.8	1: 5.3
2. Fattening cattle.					
First period.....	30	2.5	15.0	0.5	1: 6.5
Second period.....	30	3.0	14.5	0.7	1: 5.4
Third period.....	26	2.7	15.0	0.7	1: 6.2
3. Milch cows.					
When yielding daily—					
11.0 pounds of milk.....	25	1.6	10.0	0.3	1: 6.7
16.6 pounds of milk.....	27	2.0	11.0	0.4	1: 6.0
22.0 pounds of milk.....	29	2.5	13.0	0.5	1: 5.7
27.5 pounds of milk.....	32	3.3	13.0	0.8	1: 4.5
4. Sheep.					
Coarse wool.....	20	1.2	10.5	0.2	1: 9.1
Fine wool.....	23	1.5	12.0	0.3	1: 8.5
5. Breeding ewes.					
With lambs.....	25	2.9	15.0	0.5	1: 5.6
6. Fattening sheep.					
First period.....	30	3.0	15.0	0.5	1: 5.4
Second period.....	22	3.5	14.5	0.6	1: 4.5
7. Horses.					
Light work.....	20	1.5	9.5	0.4	1: 7.0
Medium work.....	24	2.0	11.0	0.6	1: 6.2
Heavy work.....	26	2.5	13.3	0.8	1: 6.0
8. Brood sows.....	22	2.5	15.5	0.4	1: 6.6
9. Fattening swine.					
First period.....	36	4.5	25.0	0.7	1: 5.9
Second period.....	32	4.0	24.0	0.5	1: 6.3
Third period.....	25	2.7	18.0	0.4	1: 7.0
10. Growing cattle.					
Dairy Breeds.					
Age in Ave. live wt.					
months. per head lbs.					
2-3 150	23	4.0	13.0	2.0	1: 4.5
3-6 300	24	3.0	12.8	1.0	1: 5.
6-12 500	27	2.0	12.5	0.5	1: 6.8
12-18 700	26	1.8	12.5	0.4	1: 7.5
18-24 900	26	1.5	12.0	0.3	1: 8.5
11. Growing cattle.					
Beef Breeds.					
2-3 160	23	4.2	13.0	2.0	1: 4.2
3-6 330	24	3.5	12.8	1.5	1: 4.7
6-12 550	25	2.5	13.2	0.7	1: 6.0
12-18 750	24	2.0	12.5	0.5	1: 6.8
18-24 950	24	1.8	12.0	0.4	1: 7.2

TABLE II—Concluded.

Animal.		Dry Matter.	Protein.	Fat.	Carbo-hydrates.	Nutritive Ratio.
12. Growing sheep.						
Wool Breeds.						
Age in months.	Ave. live wt. per head lbs.	Lbs.	Lbs.	Lbs.	Lbs.	
4-6	60	25	3.4	15.4	0.7	1: 5.0
6-8	75	25	2.8	13.8	0.6	1: 5.4
8-11	80	23	2.1	11.5	0.5	1: 6.0
11-15	90	22	1.8	11.2	0.4	1: 7.0
15-20	100	22	1.5	10.8	0.3	1: 7.7
13. Growing sheep.						
Mutton Breeds.						
4-6	60	26	4.4	15.5	0.9	1: 4.0
6-8	80	26	3.5	15.0	0.7	1: 4.8
8-11	100	24	3.0	14.3	0.5	1: 5.2
11-15	120	23	2.2	12.6	0.5	1: 6.3
15-20	150	22	2.0	12.0	0.4	1: 6.5
14. Growing swine.						
Breeding Stock.						
2-3	50	44	7.6	28.0	1.0	1: 4.0
3-5	100	35	5.0	23.1	0.8	1: 5.0
5-6	120	32	3.7	21.3	0.4	1: 6.0
6-8	200	28	2.8	18.7	0.3	1: 7.0
8-12	250	25	2.1	15.3	0.2	1: 7.5
15. Growing, fattening swine.						
2-3	50	44	7.6	28.0	1.0	1: 4.0
3-5	100	35	5.0	23.1	0.8	1: 5.0
5-6	150	33	4.3	22.3	0.6	1: 5.5
6-8	200	30	3.6	20.5	0.4	1: 6.0
9-12	300	26	3.0	18.3	0.3	1: 6.4

TABLE III.

AVERAGE DIGESTIBLE NUTRIENTS AND FERTILIZING CONSTITUENTS IN AMERICAN FEEDING STUFFS.

The following table for the digestible nutrients and fertilizing constituents are taken from Henry's Feeds and Feeding, who in turn secured a number of the results from Bulletin 22, Office of Experiment Stations, United States Department of Agriculture, and various other sources.

Name of Feed.	Dry Matter in 100 Pounds.	Digestible Nutrients in 100 Lbs.			Fertilizing Constituents in 1,000 Lbs.		
		Protein.	Fat.	Carbohydrates.	Nitrogen.	Phosphoric Acid.	Potash.
CONCENTRATES.							
Corn, all analyses.....	Lbs. 89.1	Lbs. 7.9	Lbs. 4.3	Lbs. 66.7	Lbs. 18.2	Lbs. 7.0	Lbs. 4.0
Dent corn.....	89.4	7.8	4.3	66.7	16.5		
Flint corn.....	88.7	8.0	4.3	66.2	16.8		
Sweet corn.....	91.2	8.8	7.0	63.7	18.6		
Corn cob.....	89.3	0.4	0.3	52.5	5.0	0.6	6.0
Corn and cob meal.....	84.9	4.4	2.9	60.0	14.1	5.7	4.7
Corn bran.....	90.9	7.4	4.6	59.3	16.3	12.1	6.8
Gluten meal.....	91.8	25.8	11.0	43.3	50.3	3.3	0.5
Germ meal.....	89.6	9.0	6.2	61.2	26.5	8.0	5.0
Starch refuse.....	91.8	11.4	6.5	58.4	22.4	7.0	5.2
Grano-Gluten.....	94.3	26.7	12.4	38.8	49.8	5.1	1.5
Hominy chops.....	88.9	7.5	6.8	55.2	16.3	9.8	4.9
Glucose meal.....	91.9	30.3	14.5	35.3	57.7		
Sugar meal.....	93.2	18.7	8.7	51.7	36.3	4.1	0.3
Gluten feed.....	92.2	20.4	8.8	48.4	38.4	4.1	0.3
Wheat.....	89.5	10.2	1.7	69.2	23.6	7.9	5.0
High-grade flour.....	87.6	8.9	0.9	62.4	18.9	2.2	1.5
Low-grade flour.....	87.6	8.2	0.9	62.7	28.9	5.6	3.5
Dark feeding flour.....	90.3	13.5	2.0	61.3	31.8	21.4	10.9
Wheat bran.....	88.1	12.2	2.7	39.2	26.7	28.9	16.1
Wheat bran, spring wheat.....	88.5	12.9	3.4	40.1			
Wheat bran, winter wheat.....	87.7	12.3	2.6	37.1			
Wheat shorts.....	88.2	12.2	3.8	50.0	28.2	13.5	5.9
Wheat middlings.....	87.9	12.8	3.4	53.0	26.3	9.5	6.3
Wheat screenings.....	88.4	9.8	2.2	51.0	24.4	11.7	8.4
Rye.....	88.4	9.9	1.1	67.6	17.6	8.2	5.4
Rye bran.....	88.4	11.5	2.0	50.3	23.2	22.8	14.0
Rye shorts.....	90.7	11.9	1.6	45.1	18.4	12.6	8.1
Barley.....	89.1	8.7	1.6	65.6	15.1	7.9	4.8
Malt sprouts.....	89.8	18.6	1.7	37.1	35.5	14.3	16.3
Brewers' grains, wet.....	24.3	3.9	1.4	9.3	8.9	3.1	0.5
Brewers' grains, dried.....	91.8	15.7	5.1	36.3	36.2	10.3	0.9
Oats.....	89.0	9.2	4.2	47.3	20.6	8.2	6.2
Oat meal.....	92.1	11.5	5.9	52.1	23.5		
Oat feed or shorts.....	92.3	12.5	2.8	46.9	17.2	9.1	5.3
Oat dust.....	93.5	8.9	5.1	38.4	21.6		
Oat hulls.....	90.6	1.3	0.6	40.1	5.2	2.4	5.2
Rice.....	87.6	4.8	0.3	72.2	10.8	1.8	0.9
Rice hulls.....	91.8	1.6	0.6	44.5	5.8	1.7	1.4
Rice bran.....	90.3	5.3	7.2	45.1	7.1	2.9	2.4
Rice polish.....	90.0	9.0	6.5	56.4	19.7	26.7	7.1
Buckwheat.....	87.4	7.7	1.8	49.2	14.4	4.4	2.1
Buckwheat hulls.....	86.8	2.1	0.6	27.9	4.9	0.7	5.2
Buckwheat bran.....	89.5	7.4	1.9	30.4	36.4	17.8	12.8
Buckwheat shorts.....	88.9	21.1	5.5	33.5			
Buckwheat middlings.....	87.3	22.0	5.4	33.4	42.8	21.9	11.4

TABLE III—Continued.

Name of Feed.	Dry Matter in 100 Pounds.	Digestible Nutrients in 100 Lbs.			Fertilizing Constituents in 1,000 Lbs.		
		Protein.	Fat.	Carbohydrates.	Nitrogen.	Phosphoric Acid.	Potash.
CONCENTRATES—Concluded.							
Sorghum seed.....	Lbs. 87.2	Lbs. 7.0	Lbs. 3.1	Lbs. 52.1	Lbs. 14.8	Lbs. 8.1	Lbs. 4.2
Broom-corn seed.....	85.9	7.4	2.9	48.3	16.3		
Kaffir corn.....	84.8	7.8	2.7	57.1			
Millet.....	86.0	8.9	3.2	45.0	20.4	8.5	3.6
Flax seed.....	90.8	20.6	29.0	17.1	36.1	13.9	10.3
Linseed meal, old process.....	90.8	29.3	7.0	32.7	54.3	16.6	13.7
Linseed meal, new process.....	89.9	28.2	2.8	40.1	57.8	18.3	13.9
Cotton seed.....	89.7	12.5	17.3	30.0	31.3	12.7	11.7
Cotton-seed meal.....	91.8	37.2	12.2	16.9	67.9	28.8	8.7
Cotton-seed hulls.....	88.9	0.3	1.7	33.1	6.9	2.5	10.2
Cocoonut oil.....	89.7	15.6	10.5	38.3	32.8	16.0	24.0
Palm-nut oil.....	89.6	16.0	9.0	52.6	26.9	11.0	5.0
Sunflower seed.....	92.5	12.1	26.0	20.8	22.8	12.2	5.6
Sunflower seed cakes.....	91.8	21.2	12.8	19.6	55.5	21.5	11.7
Peanut meal.....	89.3	42.9	6.9	22.8	75.6	13.1	15.0
Rape-seed meal.....	90.0	25.2	7.5	23.7	49.6	20.0	13.0
Peas.....	89.5	16.8	0.7	51.8	30.8	8.2	9.9
Soja (soy) bean.....	89.2	29.6	14.4	22.3	53.0	18.7	19.0
Cowpeas.....	85.2	18.3	1.1	54.2	33.3		
Horse bean.....	85.7	22.4	1.2	49.3	40.7	12.0	12.9
ROUGHAGE.							
Fodder Corn.							
Fodder corn, green.....	20.7	1.0	0.4	11.6	4.1	1.5	3.3
Fodder corn, field cured.....	57.8	2.5	1.2	34.6	17.6	5.4	8.9
Corn stover, field cured.....	59.5	1.7	0.7	32.4	10.4	2.9	14.0
Hay.							
Timothy.....	86.8	2.8	1.4	43.4	12.6	5.3	9.0
Orchard grass.....	90.1	2.8	1.4	42.3	13.1	4.1	18.8
Redtop.....	91.1	4.8	1.0	46.9	11.5	3.6	10.2
Kentucky blue grass.....	78.8	4.8	2.0	37.3	11.9	4.0	15.7
Hungarian grass.....	92.3	4.5	1.3	51.7	12.0	3.5	13.0
Mixed grasses.....	87.1	5.9	1.2	40.9	14.1	2.7	15.5
Rowen (mixed).....	83.4	7.9	1.5	40.1	16.1	4.3	14.9
Meadow fescue.....	80.0	2.2	1.7	43.3	9.9	4.0	21.0
Soja-bean hay.....	88.7	10.8	1.5	38.7	23.2	6.7	10.8
Oat hay.....	91.1	4.3	1.5	46.4			
Marsh or swamp hay.....	88.4	2.4	0.9	29.9			
White daisy.....	85.0	3.8	1.2	40.7			
Straw.							
Wheat.....	90.4	0.4	0.4	36.3	5.9	1.2	5.1
Rye.....	92.9	0.6	0.4	40.6	4.6	2.8	7.9
Oat.....	90.8	1.2	0.8	38.6	6.2	2.0	12.4
Barley.....	85.8	0.7	0.6	41.2	13.1	3.0	20.9
Wheat chaff.....	85.7	0.3	0.5	23.3	7.9	7.0	4.2
Oat chaff.....	85.7	1.5	0.7	33.0			
LEGUME.							
Hay and Straw.							
Red clover, medium.....	84.7	6.8	1.7	35.8	20.7	3.8	22.0
Red clover, mammoth.....	78.8	5.7	1.9	32.0	22.3	5.5	12.2
Alsike clover.....	90.3	8.4	1.5	42.5	23.4	6.7	22.3
White clover.....	90.3	11.5	1.5	42.2	27.5	5.2	18.1
Crimson clover.....	90.4	10.5	1.2	34.9	20.5	4.0	13.1
Alfalfa.....	91.6	11.0	1.2	39.6	21.9	5.1	16.8
Cowpeas.....	89.3	10.8	1.1	38.6	19.5	5.2	14.7
Soja-bean straw.....	89.9	2.3	1.0	40.0	17.5	4.0	13.2
Pea-vine straw.....	86.4	4.3	0.8	32.3	14.3	3.5	10.5

TABLE III—Concluded.

Name of Feed.	Dry Matter in 100 Pounds.	Digestible Nutrients in 100 Lbs.			Fertilizing Constituents in 1,000 Lbs.		
		Protein.	Fat.	Carbohydrates.	Nitrogen.	Phosphoric Acid.	Potash.
Silage.							
Corn.....	Lbs. 20.9	Lbs. 0.9	Lbs. 0.7	Lbs. 11.3	Lbs. 2.8	Lbs. 1.1	Lbs. 3.7
Clover.....	28.0	2.0	1.0	13.5			
Sorghum.....	23.9	0.6	0.2	14.9			
Alfalfa.....	27.5	3.0	1.9	8.5			
Grass.....	32.0	1.9	1.6	13.4			
Cowpea vine.....	20.7	1.5	0.9	8.6			
Soja bean.....	25.8	2.7	1.3	8.7			
Barnyard millet and soja bean.....	21.0	1.6	0.7	9.2			
Corn and soja bean.....	24.0	1.6	0.7	13.0			
Roots and Tubers.							
Potato.....	21.1	0.9	0.1	16.3	3.2	1.2	4.6
Beet, common.....	13.0	1.2	0.1	8.8	2.4	0.9	4.4
Beet, sugar.....	13.5	1.1	0.1	10.2	2.2	1.0	4.8
Beet, mangel.....	9.1	1.1	0.1	5.4	1.6	0.9	3.8
Flat turnip.....	9.5	1.0	0.2	7.2	1.8	1.0	3.9
Rutabaga.....	11.4	1.0	0.2	8.1	1.9	1.2	4.9
Carrot.....	11.4	0.8	0.2	7.8	1.5	0.8	5.1
Parsnip.....	11.7	1.6	0.2	11.2	1.8	2.0	4.4
Artichoke.....	20.0	2.0	0.2	16.8	2.6	1.4	4.7
MISCELLANEOUS.							
Cabbage.....	15.3	1.8	0.4	8.2	3.8	1.1	4.3
Spurry.....	20.0	1.5	0.3	9.8	3.8	2.5	5.9
Sugar-beet leaves.....	12.0	1.7	0.2	4.6	4.1	1.5	6.2
Pumpkin, field.....	9.1	1.0	0.3	5.8			
Pumpkin, garden.....	19.2	1.4	0.8	8.3	1.1	1.6	0.9
Prickley comfrey.....	11.6	1.4	0.2	4.6	4.2	1.1	7.5
Rape.....	14.0	1.5	0.2	8.1	4.5	1.5	3.6
Acorns, fresh.....	44.7	2.1	1.7	34.4			
Dried blood.....	91.5	52.3	2.5		135.0	13.5	7.7
Meat scrap.....	89.3	62.2	13.7	0.3	113.9	7.0	1.0
Dried fish.....	89.2	44.1	10.3		77.5	120.0	2.0
Beet pulp.....	10.2	0.6		7.3	1.4	0.2	0.4
Beet molasses.....	79.2	9.1		59.5	14.6	0.5	56.3
Cow's milk.....	12.8	3.6	3.7	4.9	5.3	1.9	1.8
Cow's milk, colostrum.....	25.4	17.6	3.6	2.7	28.2	6.6	1.1
Skim milk, gravity.....	9.6	3.1	0.8	4.7	5.6	2.0	1.9
Skim milk, centrifugal.....	9.4	2.9	0.3	5.2	5.6	2.0	1.9
Buttermilk.....	9.9	3.9	1.1	4.0	4.8	1.7	1.6
Whey.....	6.6	0.8	0.3	4.7	1.5	1.4	1.8

LAW REGULATING THE SALE OF FEED STUFFS IN OHIO.

(To and Including August 5, 1913).

INSPECTION OF FEED STUFFS.

Section 1129. Each person, firm or corporation desiring to sell or offer for sale within this state any feed stuffs shall furnish with each carload or quantity in bulk thereof, or affix to each package thereof in a conspicuous place thereon, a plainly printed certificate of the number of net pounds in each car or quantity in bulk, or in each package, the name or trademark under which it is sold, the name of the manufacturer or shipper, the place of manufacture and a chemical analysis of the product to be sold. Such analysis shall state the percentage of crude protein allowing one per cent of nitrogen for six and one-fourth per cent of the protein, or crude fat and of crude fibre. Such certificate shall also state the proportions of corn, oats, rye, wheat, wheat bran, wheat middlings, cotton seed meal, linseed meal, oat hulls, rice hulls, corn cob, or other product contained in such feed stuffs. (99 v. 81 § 1.)

Section 1130. Before selling or offering for sale any feed stuffs within this state, each person, firm or corporation shall file with the secretary of the state board of agriculture a certified copy of the certificate required by the preceding section, and deposit with or forward prepaid to him a sealed glass jar containing not less than one pound of such feed stuffs with an affidavit that the quantity so deposited is a fair sample of the product to be sold. (97 v. 396 § 2.)

Section 1131. For the privilege of selling or offering for sale within this state any feed stuffs, a person, firm or corporation shall pay on or before the first day of April of each year a license fee to the secretary of the state board of Agriculture, for the sale of each brand of feed stuffs, twenty-five dollars. Upon an application and the payment of such fee, the secretary of the state board of agriculture shall issue a license for the current year. All licenses shall expire on the 31st day of December of each year. The payment of a license fee by a person, firm or corporation shall exempt an agent thereof from the requirements of this section. (97 v. 396 § 3.)

Section 1132. The term "feed stuffs," as used in this chapter, includes the following and similar articles of commerce: linseed meal, cotton seed meal, pea meal, cocoanut meal, rice meal, gluten meal, gluten feeds, dried brewers' grain, malt sprouts, hominy feeds, cerea-line feeds, oat feeds and mixed feeds; but such term shall not include the following if sold as distinct articles of commerce, and not mixed with other substances: hay, straw, whole seeds, mixed meals, made

directly from the entire grains of wheat, rye, barley, oats, Indian corn, buckwheat, broom corn, wheat bran or middlings, and pure grains mixed and ground together. (97 v. 396 § 4.)

Section 1133. Each year at least one analysis shall be made of each brand of feed stuffs sold within this State. All such analyses shall be made under the direction of the secretary of the state board of agriculture, and the expense thereof paid by him from a fund arising from the payment of license fees required by the preceding section. (97 v. 396 § 5.)

Section 1134. For the purpose of analysis and comparison, the secretary of the state board of agriculture, or a person appointed by him, may take a quantity not exceeding two pounds from any car load, quantity in bulk or package of feed stuffs for sale within this state. In the performance of this duty such secretary, or person appointed by him, may enter a car, warehouse, building or other structure containing such feed stuffs. (97 v. 397 § 8.)

Section 1135. A person, firm or corporation which sells or offers for sale any kind of meal, ground grain, bran or middlings, adulterated with any other substance shall plainly state on each package thereof the proportions and kind of adulterants used therein. Whoever violates a provision of this section shall be fined not less than ten dollars nor more than two hundred dollars for the first offense, and not less than twenty-five dollars nor more than five hundred dollars for each subsequent offense. (97 v. 397 § 7.)

Section 1136. Whoever sells or offers for sale within the state feed stuffs containing a smaller percentage of any of the constituents thereof than it is certified to contain, shall be fined not less than one hundred dollars nor more than two hundred dollars, and shall be liable for damages sustained by the purchaser thereof. A deficiency of two per cent of crude protein or of crude fat, or an excess of two per cent of crude fibre in an analysis of feed stuffs, shall not be evidence of a fraudulent intent. (97 v. 397 § 6.)

Section 1137. The secretary of the state board of agriculture shall prosecute all violations of the preceding two sections. Such prosecutions may be before a justice of the peace, police judge or mayor as in cases of violation of laws relating to the adulteration of food and drink and dairy products. (97 v. 397 § 9.)

Section 1138. The secretary of the state board of agriculture shall publish annually a report of all analyses made and licenses issued for the sale of feed stuffs with a statement of moneys received from fees and expenses of analyses, and any unexpended balance shall be credited to the agricultural fund. (97 v. 397 § 10.)

**LAW REGULATING THE SALE OF FEED STUFFS, CONDIMENTAL FEEDS, ANIMAL AND POULTRY REGULATORS, CONDITIONERS, TONICS, ETC.,
EFFECTIVE AUGUST 5, 1913.**

To amend sections 1129, 1130, 1131, 1132, 1133, 1134, 1136, 1137 and 1138, to enact a new section to be known as section 1136-a and to repeal section 1135 of the General Code, relative to the sale of feed stuffs.

Section 1. That sections 1129, 1130, 1131, 1132, 1133, 1134, 1136, 1137 and 1138 of the General Code be amended and that a new section to be known as section 1136-a be enacted to read as follows:

Sec. 1129. Whoever sells or offers for sale within this state any feeds stuffs or condimental stock or poultry feeds, animal or poultry regulators, conditioners, tonics, or similar articles, in car load lots or in bulk packages thereof, shall furnish with each car load or quantity in bulk or packages thereof, or affix to each bag, barrel or other package thereof, in a conspicuous place on the outside thereof, a plainly printed certificate, which shall state the number of net pounds in each car or quantity in bulk or in each package, the name, brand, or trade mark under which it is sold or offered for sale, the name and post office address of the manufacturer, shipper or vendor, and the names of each and all ingredients of which the article is composed. Such certificate shall contain also, chemical analysis of the product to be sold which shall state the minimum percentage of crude protein, allowing one per cent of nitrogen to equal six and one-fourth per cent of protein, of crude fat and crude fiber, also the maximum percentage of crude fiber of the product to be sold, excepting animal and poultry regulators, conditioners, tonics, or similar articles where only the names of the ingredients shall be required.

Sec. 1130. Before selling or offering for sale, any feed stuffs, condimental stock and poultry feeds, animal or poultry regulators, conditioners, tonics or similar articles within this state, each person, firm or corporation shall file for each and every brand of feed stuffs, condimental stock and poultry feeds, animal or poultry regulators, conditioners, tonics, or similar articles, a distinguishing name with the Agricultural Commission of Ohio and a certified copy of the certificate required by the preceding section and forward prepaid, on request of said commissioner a sealed glass jar or bottle containing not less than one pound of such feed stuffs, condimental stock and poultry feeds, animal or poultry regulators, conditioners, tonics or similar articles with an affidavit that the quantity so forwarded is a fair sample of the product to be sold.

Sec. 1131. Before selling or offering for sale within this state any feed stuffs, condimental stock and poultry feeds, animal or poultry

regulators, conditioners, tonics, or similar articles, a person, firm, or corporation shall pay each year a license fee to the Agricultural Commission of Ohio for the sale of each brand of feed stuffs, condimental stock and poultry feeds, animal or poultry regulators, conditioners, tonics or similar articles, twenty-five dollars. The Agricultural Commission of Ohio may reject any application for license if the certificate provided for in the two preceding sections does not comply therewith, or if the name of any brand under the preceding section is misleading or not distinguishing. Upon the granting of such application and the payment of such fee said commission shall issue a license for the current year. All licenses shall expire on the thirty-first day of December of each year. The payment of a license fee by a person, firm or corporation shall exempt an agent thereof from the requirements of this section.

Sec. 1132. "Feed stuffs" in general shall be held to include all feeds used for live stock and poultry, and the following and similar articles of commerce; linseed meal, linseed oil cake, cotton seed meal, cotton seed cake, pea meal, cocoanut meal, rice meal, rice bran, rice polish, peanut meal, bean meal, gluten meal, gluten feeds, dried brewers' grains, dried distillers' grains, dried beet refuse, malt sprouts, hominy feeds, cerealine feeds, oat feeds, mixed feeds, alfalfa meal, molasses feeds, sugar feeds, mixed buckwheat bran, buckwheat hulls and buckwheat middlings, corn and corn cob meal, crushed ear corn, corn bran and corn siftings when added to other ground grains, wheat bran and screenings, ground or unground mixed feeds made from seeds or grains or grain offal, clover meals, dried blood, blood meal tankage, ground beef or fish scraps or other animal or vegetable by-products; but such term shall not include hay, straw, whole seeds, mixed meals made directly from the entire grains of wheat, rye, barley, Indian corn, buckwheat, broom corn, pure wheat bran or middlings, not mixed with other substances, when sold separately as distinct articles of commerce, nor entire grains of corn, oats, wheat, barley, buckwheat ground together, nor wheat bran and middlings not mixed with other substances.

Sec. 1133. Each year at least one analysis shall be made of each brand of feed stuffs, condimental stock and poultry feeds, animal or poultry regulators, conditioners, tonics or similar articles sold within this state. All such analyses shall be made under the direction of the Agricultural Commission of Ohio, and the expenses thereof paid by said commission from a fund arising from payment of license fees provided for in section 1131.

Sec. 1134. For the purpose of analysis and comparison with the certificate deposited with it and with the certificate on any car load

quantity in bulk, or package, the Agricultural Commission of Ohio, or a person appointed by it, may take a quantity not exceeding two pounds from any car load, quantity in bulk or package of feed stuffs, condimental stock and poultry feeds, animal or poultry regulators, conditioners, tonics or similar articles, exposed or offered for sale within this state, or in the possession of an agent, consumer or transportation company. In the performance of this duty said commission, or a person appointed by it, may enter a car, warehouse, building or other structure containing such feed stuffs, condimental stock and poultry feeds, animal or poultry regulators, conditioners, tonics, or similar articles. Any manufacturer, shipper, dealer, agent, clerk or other person who shall impede, obstruct, hinder or otherwise prevent or attempt to prevent duly authorized person from collecting samples as above described or otherwise shall be guilty of a misdemeanor and shall upon conviction, be fined not less than ten dollars nor more than fifty dollars. To have in one's possession any of above named articles shall for purposes of prosecution under this act be deemed to establish prima facie evidence that same is for sale.

Sec. 1136. Whoever sells or offers for sale within the state feed stuffs, condimental stock and poultry feeds, animal or poultry regulators, conditioners, tonics or similar articles, without having complied with the provisions of this act relating to feed stuffs, condimental stock and poultry feeds, animal or poultry regulators, conditioners, tonics or similar articles, and whoever sells or offers or exposes for sale any feed stuffs containing a smaller percentage of crude protein, and a smaller percentage of crude fat, or a large percentage of crude fibre, than it is certified to contain, and whoever sells or offers or exposes for sale, any condimental stock and poultry feeds, animal or poultry regulators, conditioners, tonics, or similar articles not containing ingredients they are certified to contain shall be fined not less than fifty dollars nor more than two hundred dollars and shall be liable for damages sustained by the purchaser thereof.

Sec. 1136-a. That for the purpose of this act feeding material should be deemed adulterated if it contains any saw-dust, dirt, damaged feed, rice hulls, chaff, peanut shells crushed corn cob, oat hulls or any foreign material whatever with little or no feeding value admixed. Provided, that no wholesome mixture of feed stuffs not containing any of the above named adulterants shall be deemed to be adulterated if the ingredients composing same be plainly and clearly stated on the package and is made known to the purchaser, as hereinafter designated as commercial feed stuffs.

Sec. 1137. In all prosecutions under this act, a justice of the

peace, police judge or mayor shall have final jurisdiction as in cases of violation of laws relating to the adulteration of food and drink and dairy products.

It shall be the duty of the Agricultural Commission of Ohio or its deputized representatives to bring prosecution for all violations under the provisions of this act, or the attorney general when requested to do so by said commission.

Sec. 1138. The Agricultural Commission of Ohio shall make an annual report of, and may publish from time to time analysis made and chemists' findings of ingredients on samples drawn as provided in section 1134 together with the analysis and ingredients guaranteed by the manufacturer, shipper or person. Such annual report shall contain a statement of moneys received and expended, from license fees collected for the sale of feed stuffs, condimental stock and poultry feeds, animal or poultry regulators, conditioners, tonics or similar articles. Any unexpended balance shall be credited to the agricultural fund.

Section 2. That said original sections 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137 and 1138 of the General Code be, and the same are hereby repealed.

STOP—LOOK—LISTEN.

A \$25.00 LICENSE FEE must be paid for each brand of FEED STUFFS or CONDIMENTAL FEED, ANIMAL or POULTRY REGULATOR, CONDITIONER, TONIC, etc., sold or offered for sale in Ohio.

When filling in application for license covering the sale of FEED STUFFS or CONDIMENTAL FEEDS, give percentage claims for Protein, Fat and Fiber as well as ingredients of which same is composed. For ANIMAL or POULTRY REGULATORS, CONDITIONERS, TONICS, etc., name ingredients only.

BULLETIN
OF
Farmers' Institutes

TO BE HELD UNDER THE
AUSPICES OF

The Agricultural Commission
of Ohio

1913-1914

(769)

Agricultural Commission of Ohio

A. P. SANDLES, *President.*

FARMER INSTITUTE INSTRUCTORS.

1913-1914.

F. L. Allen, Instructor, Burton, Ohio.

SUBJECTS:

1. Life in the Soil.
2. Conservation of Moisture.
3. Organic Matter in the Soil.
4. Manures and Fertilizers.
5. The Lime Requirements of Soil.
6. The Consumers' Dollar.
7. Farm Management With the Farmers.
8. Wonderland (Night).

Mary E. Anderson, Instructor, Clinton, Ohio.

SUBJECTS:

1. One Way to Keep the Boys and Girls on the Farm.
2. Home Care of the Sick—Including First Aid to the Injured.
3. The Care of the Child.
4. What to Eat—A Balanced Ration for the Human Animal.
5. Home Sanitation—Paying Particular Attention to the Prevention of Typhoid Fever and the Elimination of the House Fly.
6. Some Communicable Diseases—Their Prevention or Control.
7. Pests of the House and Barn.

S. J. Baldwin, Instructor, Tallmadge, Ohio.

SUBJECTS:

1. The Silo.
2. Feeds and Feeding.
3. The Dairy.
4. Increasing Fertility.
5. Fertilizers.
6. Friendly Birds and Insects.
7. Chickamauga (Night.)

F. H. Ballou, Instructor, Wooster, Ohio.

SUBJECTS:

1. Orchard in a Hill Country (A complete discussion to be used where but one topic is necessary).
2. The Essentials of Successful Apple Culture (A complete discussion to be used where but one topic is necessary).
3. Orchard Fertilization.
4. Pruning and Thinning.
5. Orchard Culture.
6. Control of Diseases and Insects.

John Begg, Instructor, Columbus Grove, Ohio.

SUBJECTS:

1. Fundamental Principles in Plant Production.
2. Raising and Feeding Cattle.
3. Alfalfa and Clovers.
4. Care of the Soil.
5. Manures and Commercial Fertilizers.
6. Progressive Agriculture (Night).
7. Permanent Rural Improvements (Day or Night).
8. The Renting Problem (Night).

Frank Blackford, Instructor, Eldorado, Ohio.

SUBJECTS:

1. The Farmer's Garden and Orchard.
2. Corn—
 - a. Seed.
 - b. Cultural Methods.
3. Soil Problems—
 - a. Drainage.
 - b. Cultivation and Bacteria.
 - c. Commercial Fertilizers.
 - d. Manures and Clovers.
4. The Farmer as a Business Man (Day or Night).
5. The Tobacco Crop.
6. Opportunities for Social Life and Culture Open to the Farmer.
7. Starting a Commercial Orchard.
8. Co-operation Among Farmers.

H. D. Bowsher, Instructor, Hume, Ohio.

SUBJECTS:

1. Systematic and Thorough Tile Drainage.
2. Alfalfa Failures and Subsequent Successes.
3. Corn—Methods by Which My Yield Per Acre Has Doubled.
4. Hogs as Labor Savers and Money Makers.
5. Why the Drafter Should Displace the Common Horse.
6. A Ramble (Night).

E. A. Brenneman, Instructor, Camp Chase, Ohio.

SUBJECTS:

1. Planting Orchards and Small Fruit.
2. When and How to Prune.
3. When, How and for What to Spray.
4. Picking, Packing and Selling Fruit.
5. Profitable Fruit Growing (Day or Night).
6. Alfalfa.
7. The Farmer's Greatest Problem—"Help."
8. Profitable Bee Keeping and Its Relation to Farm Crops.
9. Making Home Beautiful (Day or Night).

J. S. Brigham, Instructor, Bowling Green, Ohio.**SUBJECTS:**

1. Methods of Soil Improvement.
2. Potato Culture in Ohio.
3. Alfalfa, Soy Beans and Other Legumes.
4. Growing a Corn Crop.
5. The Farm Garden and Orchard.
6. Manures and Fertilizers.
7. Gardening for Profit.
8. The Rural Outlook (Night).

J. L. Buchanan, Instructor, Sherodsville, Ohio.**SUBJECTS:**

1. Horse (In four distinct Lectures)—
 - a. The Farmer's Horse.
 - b. The Colt.
 - c. The Family Horse.
 - d. Horse Breeding.
2. Value of Improved Live Stock and How Improved.
3. My Success and Failure in Farming and Why.
4. Modern Farm Equipments.
5. Cement and How to Use It.
6. Soil Building.
7. What is the Pay? (Night).
8. When Man Becomes King and Woman Queen (Night).

M. O. Bugby, Instructor, Wooster, Ohio.**SUBJECTS:**

1. The Value of Dairy Records.
2. The Profitable Handling of Manure.
3. Some Plant Diseases—Cause and Treatment.
4. Research Work and Its Value to the Farmers.
5. Co-operative Work With Farmers and U. S. Department of Agriculture.

H. Burkholder, Instructor, Clyde, Ohio.**SUBJECTS:**

1. Kinds of Fruit and Planting.
2. Pruning, Tillage and Spraying of Fruits.
3. Picking, Packing and Marketing Fruits.
4. Early Potatoes, Tomatoes and Other Vegetables.
5. Poultry—The Fancier's and the Farmer's.
6. Benefits of Better Farm Home Sanitation and Sewage Disposal.
7. Schools, Reading Matter, Etc.

S. W. Burlingame, Instructor, Caldwell, Ohio.**SUBJECTS:**

1. Planting and Care of Fruit Trees.
2. The Home Marketing of Fruit.
3. Commercial Fertilizers.
4. How We Grow Clover and Why.
5. The Importance of the Ohio Experiment Station.
6. Some Reasons Why Boys Leave the Farm (Night).
7. Cement and Its Use.
8. "Hindsights" (Day or Night).

B. E. Carmichael, Instructor, Wooster, Ohio.

SUBJECTS:

1. Better Live Stock for Ohio.
2. Composition and Value of Feeds.
3. Mutton Production.
4. Beef Production.
5. Pork Production.
6. Feeding Work Horses.

Geo. N. Coffey, Instructor, Wooster, Ohio.

SUBJECTS:

1. The Soil Survey in Its Relation to Your Farm.
2. Preservation of Manure.
3. Lime and Its Uses.
4. Increasing the Productiveness of the Soil.
5. Soil Inoculation.

W. M. Cook, Instructor, 215 East Second St., Xenia, Ohio.

SUBJECTS:

1. Soil Fertility on a Southwestern Ohio Soil Type.
2. Alfalfa in Ohio.
3. Marketing of Hogs and Hog Products in Ohio.
4. The Work of the County Agricultural Agent.
5. The New Agriculture (Night).

W. F. Copeland, Instructor, Athens, Ohio.

SUBJECTS:

1. The Small Farm.
2. Farm Homes and Farm Conditions.
3. School Agriculture.
4. A Crop of Corn or a Crop of Wood.
5. The Land a Guide to Farming.
6. Farmers' Unrecognized Friends and Helpers.
7. Sanitation.
8. The Cost of Agricultural Traditions (Night).

J. J. Crumley, Instructor, Wooster, Ohio.

SUBJECTS:

1. Conditions of Ohio's Woodlands—Suggestions for Their Improvement.
2. Utilizing Waste Places.
3. Relative Durability of Post Timbers.
4. Shade Trees and Shelter Belts.
5. Forest, Spring and Stream.
6. Tree Seeds and Seedling Trees.
7. Arbor Day and Its Relation to Forestry.
8. The Catalpas.

O. A. Dobbins, Instructor, Cedarville, Ohio.**SUBJECTS:**

1. Growing and Fattening 200 Hogs a Year (Illustrated).
2. How We Grow 100 Bushels of Corn Per Acre.
3. Live Stock vs. Grain Farming.
4. Fighting Hog Cholera by Sanitary and Protective Methods.
5. Through Chicago's Slums (Night).

Pearl Dorsey, Instructor, Moundsville, W. Va.**SUBJECTS:**

1. Foods and Their Preparation.
2. Canning and Care of Food Supply.
3. Household Economy and Conveniences.
4. Home Care of Milk and Butter Making.
5. The Farm Home.
6. Social Life in the Country.

D. E. Dunham, Instructor, Lebanon, Ohio.**SUBJECTS:**

1. Soil Improvement.
2. Hog Raising for Profit.
3. The Corn Crop.
4. Our Wheat Crop.
5. Faces to the Front.

Ida A. Durbin, Instructor, Fredericktown, Ohio.**SUBJECTS:**

1. How to Prepare a Well Balanced Meal.
2. The Profession of Home Making.
3. Sanitation in the Country Home.
4. Mother and the Girls (Separate session).
5. How to be Young at Fifty.
6. The Farmer and His Hired Man.

C. W. Elliott, Instructor, Mt. Healthy, Ohio.**SUBJECTS:**

1. Farm Management (Chart).
2. First Principles in Corn Growing.
3. The Farmer's Orchard and Garden.
4. Economy in Barn Building (Chart).
5. The County Experiment Farm.
6. Boys and Girls on the Farm.

W. Porter Elliott, Instructor, Athens, Ohio.**SUBJECTS:**

1. The Growing of Small Fruits.
2. The Location of Orchards, Care of Trees and Marketing of Fruit.
3. The Breeding and Care of Poultry.
4. The Growing of Leguminous Crops.
5. The Dairy Cow and Her Feed.
6. Agriculture (Night).
7. The Need of the Hour (Night).

C. P. Funk, Instructor, Wooster, Ohio.**SUBJECTS:**

1. Live Stock and a Permanent Agriculture.
2. Care of the Farm Horse.
3. Selection and Care of the Dairy Cow.
4. Poultry for Profit.
5. The Fruit Problem.
6. How to Improve Our Soils.
7. A Message from a Hayseed.

D. W. Galehouse, Instructor, Wooster, Ohio.**SUBJECTS:**

1. The Experiment Station and the Farmer.
2. Alfalfa.
3. Corn Improvement.
4. Lime and Its Uses.
5. Commercial Fertilizers and Their Application.
6. Tile Drainage.
7. Boys' and Girls' Club Work (Illustrated—Night).

W. H. Goodwin, Instructor, Wooster, Ohio.**SUBJECTS:**

1. Relation of Insects to Public Health.
2. Orchard Spraying.
3. Sprays, Mixing Plants and Spraying Machinery.
4. Insects Affecting Staple Crops, Grains and Other Products in Storage.
5. Our Allies in the War Against Insects, Birds, Insectivorous Animals, Parasites, Fungous and Bacterial Diseases.
6. Insects Affecting Garden and Truck Crops.
7. Insects Affecting Live Stock and Poultry.
8. The Insect World Through the Stereopticon. Some of Its Inhabitants and Their Wonderful Ways.

J. F. Gordon, Instructor, 1897 North Fourth St., Columbus, Ohio.**SUBJECTS:**

1. Soil Improvement—
 - a. Drainage.
 - b. Organic Matter.
 - c. Lime.
 - d. Tillage.
 - e. Texture.
 - f. Rotation of Crops.
2. Live Stock—
 - a. Dairying.
 - b. Producing Cheaper Beef.
 - c. Pork Production.
 - d. The Draft Horse.
3. Poultry.
4. Alfalfa.
5. Corn—
 - a. How to Profitably Grow It.
 - b. Economic Feeding.
 - c. Variety to Grow.
6. When and How to Use Commercial Fertilizers.
7. The Business Side of Farming.
8. The Making of Manhood and Womanhood (Night).

H. A. Gossard, Instructor, Wooster, Ohio.**SUBJECTS:**

1. Relation of Insects to Public Health.
2. Orchard Spraying.
3. Sprays, Mixing Plants and Spraying Machinery.
4. Insects Affecting Staple Crops, Grains and Other Products in Storage.
5. Our Allies in the War Against Insects, Birds, Insectivorous Animals, Parasites, Fungous and Bacterial Diseases.
6. Insects Affecting Garden and Truck Crops.
7. Insects Affecting Live Stock and Poultry.
8. The Insect World Through the Stereopticon. Some of Its Inhabitants and Their Wonderful Ways.

C. F. Green, Instructor, Pataskala, Ohio, R. D.**SUBJECTS:**

1. Hillside Farming.
2. Soil Maintenance.
3. Use and Abuse of Commercial Fertilizers.
4. Relative Importance of Live Stock.
5. Milk or Beef Production.
6. Farm and Home Conveniences.
7. The Modern Yard-Stick (Night).

J. W. Hammond, Instructor, Wooster, Ohio.**SUBJECTS:**

1. Better Live Stock for Ohio.
2. Composition and Value of Feeds.
3. Mutton Production.
4. Production and Marketing of Wool.

D. D. Harsh, Instructor, Minerva, Ohio.**SUBJECTS:**

1. How to Build Up a Run-down Farm.
2. The Farmer's Horse.
3. Cattle for Profit.
4. What Hog Shall We Grow?
5. Care of Fruit.
6. Corn Culture.
7. Home-making for the Young People.

C. C. Hayden, Instructor, Wooster, Ohio.**SUBJECTS:**

1. Better Dairy Cattle for Ohio.
2. Feeding and Care of the Dairy Herd.
3. Raising the Dairy Heifer.
4. The Care of Milk and Cream on the Farm.

R. A. Hayne, Instructor, Adena, Ohio.**SUBJECTS:**

1. Alfalfa Suggestions.
2. The Soil Our Only Lasting Resource.
3. Some Principles of Stock Feeding.
4. Horses.
5. Sheep.
6. Improved Live Stock.
7. The Evolution of the Boy.
8. If I Were Boss.

Austin Herrick, Instructor, Twinsburg, Ohio.**SUBJECTS:**

1. Profitable Dairying by the Common Farmer.
2. Mixed Farming.
3. Business Methods on the Farm.
4. The Story of a Ninety-Acre Run-down Farm.
5. The Orchard as a Side Line.
6. Boys on the Farm (Night).
7. Home Surroundings (Night).

A. F. High, Instructor, New Washington, Ohio.**SUBJECTS:**

1. Some Things Necessary for a Good Corn Crop.
2. Feeding Hogs for Profit.
3. What About the Cattle Business?
4. The Silo for the Corn Belt Farmer.
5. Tile Drainage.
6. Why We Rotate Crops.
7. How Can Wasteful Methods Be Prevented?
8. My Experience With Boys (Night).

E. J. Hoddy, Instructor, Linden Heights, Ohio.**SUBJECTS:**

1. Buying, Planting and Care of the Young Orchard.
2. Rejuvenating Old Orchards.
3. Principles of Pruning.
4. Principles of Spraying.
5. Marketing the Fruit Crop.
6. Address (Night).

True Houser, Instructor, Germantown, Ohio.**SUBJECTS:**

1. Improvement of Tobacco by Selection and Hybridization.
2. The Special Fertilizer Requirements of Tobacco.
3. The Care of Tobacco from Seed Sowing Until Harvesting.
4. Curing Tobacco—The Construction and Management of Curing Sheds.
5. The Problem of Rotation on the Small Tobacco Farm.
6. Tobacco Diseases and Curing House Troubles.

J. S. Houser, Instructor, Wooster, Ohio.**SUBJECTS:**

1. Relation of Insects to Public Health.
2. Orchard Spraying.
3. Sprays, Mixing Plants and Spraying Machinery.
4. Insects Affecting Staple Crops, Grains and Other Products in Storage.
5. Our Allies in the War Against Insects, Birds, Insectivorous Animals, Parasites, Fungous and Bacterial Diseases.
6. Insects Affecting Garden and Truck Crops.
7. Insects Affecting Live Stock and Poultry.
8. The Insect World Through the Stereopticon. Some of Its Inhabitants and Their Wonderful Ways.

G. C. Houskeeper, Instructor, Bowling Green, Ohio.**SUBJECTS:**

1. Corn—Varieties and Seed.
2. Corn—Fertilizers and Tillage.
3. Is Forty Acres Enough?
4. Profit and Fertility.
5. Fertilizers? Yes.
6. Potatoes.
7. Cement on the Farm.
8. Success (Night.)

J. F. Hudson, Instructor, Ravenna, Ohio.**SUBJECTS:**

1. Farm Butter-Making.
2. Dairy Management.
3. Alfalfa.
4. Developing the Dairy Herd.
5. Maintaining Soil Fertility.
6. Why Boys Leave the Farm.
7. The Farmer and the Laws.
8. Co-operation in Portage County.

J. A. Hummon, Instructor, Leipsic, Ohio.**SUBJECTS:**

1. Tile Drainage and Its Benefits.
2. Some Leaks on the Farm.
3. Feeding Hogs for Profit.
4. Alfalfa.
5. Potatoes.
6. Soy Beans.
7. Permanent and Sanitary Farm Improvements (Night).
8. The Wife's Share (Night).

T. B. Kibler, Instructor, Rawson, Ohio.**SUBJECTS:**

1. Soil Fertility.
2. Improving the Corn Crop.
3. Farm Live Stock.
4. Shall We Grow Wheat?
5. The Farmer's Orchard.
6. Our Boys and Girls (Night).

P. C. Knisely, Instructor, New Philadelphia, Ohio.

SUBJECTS:

1. The Silo.
2. The Dairy Cow.
3. The Corn Crop.
4. How to Produce a Good Wheat Crop.
5. Lime and Fertilizers.
6. Increasing the Fertility of the Soil.
7. Farm Management.
8. The Farm, School and Home (Night).

Christine D. Laws, Instructor, 1371 West 115th St., Cleveland, Ohio.

SUBJECTS:

1. Food Composition and Combinations.
2. Hygiene and Household Sanitation.
3. Food Adulteration and Household Pests.
4. Woman—Yesterday and Today.

Horatio Markley, Instructor, Mt. Gilead, Ohio.

SUBJECTS:

1. The Big Six of Soil Improvement.
2. Thirty Years of Corn Growing.
3. The Wheat Crop.
4. The Ohio Clover Family.
5. Advantages of Live Stock Farming.
6. Practical Forestry.
7. Advice to Young and Old Farmers (Day or Night).
8. The Farm Home and Its Surroundings (Night).

W. A. Matheny, Instructor, Athens, Ohio.

SUBJECTS:

1. Bees and Bee Culture.
2. Insects of the Farm.
3. Fungous Diseases of Plants.
4. Birds and Their Relation to the Farm.
5. Home Sanitation.
6. The Rural School and the Community.
7. Forestry and the Home Wood Lot.

E. C. Martindale, Instructor, Wilkinson, Ind.

SUBJECTS:

1. How to Raise More and Better Wheat.
2. How to Raise More and Better Corn.
3. The Clover Crop and How to Use It.
4. Tile Drainage—Why and How.
5. Manure—Its Care and Application.
6. Rearing and Feeding Hogs.
7. The Horse and His Care.
8. Sheep on the Farm.
9. The Home (Night).
10. The Boy (Night).

H. P. Miller, Instructor, Ravenna, Ohio.

SUBJECTS:

1. Farm Management.
2. Co-operation.
3. The County Counsellor and His Work.
4. The Adaptation of Fertilizers to Soils and Crops.
5. The Economical Feeding of Animals.
6. Ailments of Animals and their Treatment.

S. W. Moore, Instructor, Gallipolis Ferry, W. Va.

SUBJECTS:

1. The Selection and Planting of Trees and Plants.
2. Care and Cultivation of Orchards.
3. Pruning of Trees, Plants and Vines.
4. Why, When and With What to Spray.
5. The Farmers' Food Supply.
6. Growing Plants in Order that Other Plants May Grow.
7. Four Problems Which the Successful Agriculturalist Must Solve.

C. W. Montgomery, Instructor, Newark, Ohio.

SUBJECTS:

1. Farm Management.
2. Permanent Pastures.
3. Farm Manures.
4. Commercial Fertilizers.
5. Farm Poultry.
6. What Can a Man Do on a Small Farm?
7. The Use of Legumes and Cover Crops.
8. The Ohio Agricultural Experiment Station.

J. W. Nicodemus, Instructor, Van Wert, Ohio.

SUBJECTS:

1. Soy Beans.
2. The Necessity of Animal Breeding and System in Establishing the Herd.
(Illustrated.)
3. Alfalfa.
4. The Hog Business (Test Work).
5. The Horse Industry. (Illustrated.)
6. How to Begin the Study of Live Stock. (For Boys' Session.)
7. A Story of the Land.

Inez Plotner, Instructor, West Mansfield, Ohio.

SUBJECTS:

1. House from Top to Bottom.
2. Ideal Kitchen.
3. Interior Decoration.
4. Foods.
5. Home Economics.

Laura E. Riedinger, Instructor, Alliance, Ohio.

SUBJECTS:

1. Labor Saving Devices in the Home.
2. In Our Steps—Or the Training of Our Children.
3. Some of Our Most Common Foods and How to Prepare Them.
4. The Farmer's Wife—Or Woman Who Raises Poultry.

Ernest J. Riggs, Instructor, 1990 Summit St., Columbus, Ohio.

SUBJECTS:

1. The Apple Orchard.
 - a. Planning and Planting.
 - b. Methods of Culture.
 - c. Pruning.
 - d. Spraying.
 - e. Harvesting and Marketing.
 - f. The Home Orchard.
2. Agricultural Education (Night).

E. E. Robertson, Instructor, Norwalk, Ohio.

SUBJECTS:

1. Nursery Stock—Its Selection and Care.
2. Spraying.
3. Reclaiming the Old Orchard.
4. Growing Fruit for Profit.
5. Legumes in the Orchard.
6. Our Neighbors to the South (Night).

George E. Scott, Instructor, Mt. Pleasant, Ohio.

SUBJECTS:

1. New Standards for Corn Growing for 1914.
2. Reasons for Using Commercial Fertilizers With Clover and Alfalfa in Rotation Work.
3. A Discussion of Dairy Problems for Better Stock and Profit.
4. Concrete vs. Modern Silos—Value of Silage.
5. Profit in Modern Apple Orchard.
6. The Farmer's Wife and Her Poultry Yard.
7. A Balanced Ration for Brain and Brawn.
8. Higher deals for the New Home in the New Agriculture.

Bert Smith, Instructor, Delaware, Ohio.

SUBJECTS:

1. Permanent and Sanitary Improvements for the Farm Home.
2. Conserving and Building Up Our Soil.
3. Some Hints on Successful Growing of Alfalfa.
4. Ensilage, the Indispensable Feed.
5. Dairying for Profit.
6. Raising the Jersey Calf to Maturity.
7. Demonstrating the Babcock Test.

L. G. Spencer, Instructor, Niles, Ohio.

SUBJECTS:

1. Needs in Profitable Dairying.
2. Butter Making on the Farm.
3. Shall I Build a Silo?
4. Problems of Fertility.
5. Renewing and Care of Old Orchards.
6. Sanitation of the Farm Home.
7. The New Agriculture (Night).

M. C. Thomas, Instructor, Mingo, Ohio.

SUBJECTS:

1. The Corn Crop.
2. Potato Culture.
3. The Live Stock Farmer.
4. Swine Husbandry.
5. Commercial Fertilizers.
6. Some Problems in Soil Fertility.
7. In the Maple Orchard.
8. The Ohio Experiment Station.
9. The County Experiment Farm and County Agent.
10. Time, Chance and the Farmer (Night).

M. L. Tressler, Instructor, Montpelier, Ohio.

SUBJECTS:

1. Alfalfa on Every Farm.
2. Silos—Facts About Them and Why They are Needed.
3. Scientific Farming or Knowing the Reason Why.
4. Keeping Cows for Profit.
5. Soil Building.
6. The Farmer of Tomorrow.
7. The Rainbow Comes Down in Ohio (Night).
8. A Good Time to Live (Night).

H. Foley Tuttle, Instructor, Wooster, Ohio.

SUBJECTS:

1. The Soil Survey in Its Relation to Your Farm.
2. Preservation of Manure.
3. Lime and Its Uses.
4. Increasing the Productiveness of the Soil.
5. Soil Inoculation.

C. R. Wagner, Instructor, Arlington, Ohio.

SUBJECTS:

1. What Live Stock Means to the Ohio Farmer.
2. Principles that Relate to Live Stock Breeding.
3. Care a Determining Factor in Live Stock Production.
4. Animal Feeding—Considerations that Relate Thereto.
5. The Hog on a Corn Farm.
6. A Stronger Co-operation Between the Farmer and City Man.
7. What the Corn and Baking Contests Mean to Ohio Citizens.
8. The Signs of the Times for the Farmer.
9. Steps Toward Success in Life (Night).

Speakers Available for Evening Lectures

To Officers of Regular and Independent Institutes:

The Agricultural Commission recommends the following named persons for an evening talk or Saturday afternoon address at farmers' institutes on special subjects. In some instances a program is given the second evening of the institute. If the services of these men are desired institute officers should write direct to the person wanted. These men are strong in their line and are able to deliver a very popular lecture. Salary and expenses of these special speakers must be borne by the local societies.

Respectfully,

A. P. SANDLES, *Director.*

S. E. STRODE, Member Agricultural Commission, Columbus, Ohio.

H. C. PRICE, Member Agricultural Commission, Columbus, Ohio.

C. G. WILLIAMS, Member Agricultural Commission, Wooster, Ohio.

J. F. CUNNINGHAM, Gambier, Ohio.

1. Alfalfa.
2. Corn.
3. Cattle Feeding.
4. European Agriculture.
5. Farm Credits.
6. Co-operation at Home and Abroad.
7. Lessons from Denmark.
8. My Trip Abroad as a Member of the Agricultural Commission (Night).

W. M. BROWN, Nova, Ohio.

1. Rural Credits.
2. Agricultural Co-operation.
3. My Experiences in Europe With American Agricultural Commission.

J. E. CLARKE, 373 Wilbur Avenue, Columbus, Ohio.

H. E. GOLL, Swanton, Ohio

LESTER S. IVINS, Lebanon, Ohio.

S. A. HARBOUR, 1476 Lee Road, Cleveland, Ohio.

} *Agricultural
Supervisors.*

Services free to institutes. Should be notified in ample time.

JAMES T. BEGG, Ironton, Ohio.

1. Does It Pay to Educate?
2. The Boy—How Protect Him.
3. The Future of the Rural Schools.
4. The Country Boy in the City.

GEO. W. BROWN, Youngstown, Ohio.

1. The Twentieth Century Country Life.
2. Making the Farm Live vs. Living on the Farm.
3. The Lopsided Man.
4. The American Boy.

W. F. COPELAND, Athens, Ohio.

1. The Cost of Agricultural Traditions.
2. The New Agriculture.
3. A City Farm Home.

C. W. COOKSON, Troy, Ohio.

1. The Boy and His Mother.

J. H. DICKASON, Wooster, Ohio.

1. Forty Minutes in a Flying Machine.
2. An Hour at the Ohio Agricultural Experiment Station.
3. The Story of a Dutch Farmer Boy.
4. Through the Apple Orchards of Colorado.
5. How to Interest the Boy on the Farm.
6. The Boy and His White-clad Foe.

H. C. DIETERICH, Ashtabula, Ohio.

1. The Farm and the School.

HARVEY L. EBY, Kent, Ohio.

1. School and Life.
2. The Crusade for the Rural Schools.

W. G. FARNSWORTH, Waterville, Ohio.

1. Horticulture in Its Different Phases.

GEO. W. GOOD, Tiffin, Ohio.

1. The Problem of the Country Church.
2. Rural Education in Its Relation to the Rural Problem.

H. H. HELTER, Mansfield, Ohio.

1. Country Life in Comparison with City Life.
2. The Demands of Agriculture on Rural Education.
3. The Three Great Rural Needs.

BERT HIGHLANDS, Mechanicsburg, Ohio.

1. The Boy on the Farm.
2. Culture and Character.
3. Apples.
4. Promise of Power Fulfilled.
5. Agriculture and Its Teachings.

I. N. KEYSER, Urbana, Ohio.

1. Plant and Insect Structures (Illustrated).
2. Farming for Dollars—Yes.
3. Bacteria and Their Products.
4. The Drift Soils of Ohio.
5. Discussion of School Equipment—Agricultural Studies.

C. L. MARTZOLFF, Athens, Ohio.

1. The True Aristocracy.
2. Ohio and the Ohioans.

CHAS. L. McINTIRE, Board of Administration, Columbus, Ohio.

1. County Experiment Farms.

E. E. MILLER, Summerfield, Ohio.

1. The Drift From Country to City—The Remedy.
2. The Rural School Problem.
3. Important Things Not in Books or Papers.
4. Originality on the Farm.
5. The Practical and the Impractical.
6. Some Farm Experiments and the Result.
7. What Pays?

E. M. PAGE, Ottawa, Ohio.

1. The Country Community.
2. The Farmer's Home and Wife.

J. RICHARDSON, Athens, Ohio.

1. The Rural School Problem.
2. Centralization.

T. W. TICHENOUR, Lebanon, Ohio.

1. Civic Improvement.
2. Shakespeare as a Farmer.

H. B. WILLIAMS, Sandusky, Ohio.

1. Rural Education.
2. Does Education Pay?

HENRY G. WILLIAMS, Athens, Ohio.

1. Agricultural Education.
2. Relation of Agriculture to Public Education.
3. The Home and the Community.
4. Science as a Means of Social Betterment.
5. Cost of Ignorance.

J. W. WYANDT, Bryan, Ohio.

1. Home Making.
2. Relative Values.
3. Literature in the Home.

J. W. ZELLER, Columbus, Ohio.

1. Ten Good Reasons for Centralization of Schools.
2. Conditions Essential to Successful Teaching of Agriculture.
3. Why So Much Ado About Agriculture?

ALEXANDER BOXWELL, Lebanon, Ohio.

1. Moral Aspect of Country Life.

CHAS. L. BURRELL, Alliance, Ohio.

1. The Cultivation of the Mind on the Farm.
2. Fits and Misfits on the Farm.

G. J. KEINATH, Ottawa, Ohio.

1. Agricultural Education.
2. Agriculture in the Rural Schools.

J. P. SHARKEY, Van Wert, Ohio.

1. Ohio and the Middle West.
2. Some Things the Teaching of Agriculture in the Public Schools Should Accomplish.

JOHN A. McDOWELL, Ashland, Ohio.

1. Needs of Rural Schools.
2. Education Needed Today.
3. Uncle Sam and His Family.
4. The Boys—How to Treat Them.

A. C. SHUMAN, Tiffin, Ohio.

1. The Country Church and Rural Life.

Speakers Available for Independent Institutes

SEASON 1913-14

MILFORD H. BARTTER, COLUMBIA STATION, OHIO.

1. The Value of an Agricultural Education—30 minutes.
2. Buying Commercial Fertilizers and Lime—35 minutes.
3. How we are Tiling our Farms—25 minutes.
4. Reinforcing and Care of Manure—30 minutes.
5. Raising Potatoes—25 minutes.

Terms: \$5.00 per day and expenses.

Phone Cleveland, Cuyahoga, Columbia—"A" on 22.

I. M. BIDDINGER, EATON, OHIO.

1. Importance of Live Stock on the Farm—40 minutes.
2. Use and Abuse of Commercial Fertilizers—35 minutes.
3. Advantages of Growing Alfalfa—40 minutes.
4. Practical Rural Dairying—30 minutes.
5. Economy on the Farm—35 minutes.
6. Tobacco Culture—
7. Some Causes of the High Cost of Living—40 minutes. (Night.)
8. The Other Side of a Dollar—40 minutes. (Night.)

Terms: \$5.00 per day and expenses.

Phone Eaton Exchange.

JOHN W. CONOVER, MASON, OHIO.

1. The Hogs as a Mortgage Lifter—30 minutes.
2. The Most Profitable Horse to Raise on Farm—25 minutes.
3. Teeth or no Teeth—30 minutes.
4. More Live Stock for Soil Fertility—25 minutes.
5. Young America on the Farm—30 minutes.

Terms: \$5.00 per day and expenses.

Valley Phone 47-3.

M. V. COWDERY, MT. ORAB, OHIO.

1. Legumes vs. Other Farm Crops.
2. Agriculture vs. Other Vocations.
3. Silage vs. Dry Feeds.
4. General Farming.
5. Soil Fertility.
6. Conservation of Water.
7. Family Environments of County Life vs. City Life.

Telephone service over either Phone.

J. C. DICKINSON, CUMBERLAND, R. R. 7.

1. Ohio's Waste Lands, and What to do With Them.
2. Pasture Lands and How to Improve.
3. Our Farm Lands and How to Increase Their Fertility.
4. Meadows and Their Care.
5. Our Live Stock.
6. Alfalfa.
7. What Constitutes a Successful Farmer.
8. Choosing a Vocation.

W. F. DOBBS, WINDHAM, OHIO.

1. Why our Pastures and Meadows are Failing, and the Remedy—20 minutes.
2. Marketing Farm Products—20 minutes.
3. Co-operation on the Farm—20 minutes.
4. Selection and Care of Farm Machinery—20 minutes.
5. Feeds and Feedings—15 minutes.
6. The Kicker—25 minutes. (Night.)

Terms: \$5.00 per day and expenses.
Windham Phone 37-D.

T. H. FRAKER, DELTA, OHIO.

Growing and Care of Alfalfa.

\$3.00 per day and expenses.

R. I. GOBLE, LIMA, OHIO.

1. Sheep Raising in Detail—20 minutes.
2. Hog Raising in Detail—20 minutes.
3. The Rural Home—30 minutes.
4. Corn Crop from the Feeder's Viewpoint—30 minutes.
5. The American Farmer—How Should he be Represented?—20 minutes.
6. The Most Important Crop on the Farm—the Boys and the Girls—20 minutes.

Phone care G. W. Michael, Cairo, Ohio.

CLYDE H. HOOLEY, CABLE, OHIO.

1. Alfalfa.
2. The Soy Bean.
3. Factors that are Bringing our Farm Homes to the Front.
4. Manure, its Value, and How to Save it.
5. Our Best Methods of Soil Building.

Terms: \$4.00 per day and expenses.
Bell Phone.

T. B. KIBLER, RAWSON, OHIO.

1. Soil Fertility.
2. Improving the Corn Crop.
3. Farm Live Stock.
4. Shall We Grow Wheat?
5. The Farmer's Orchard.
6. Our Boys and Girls (Night.)

C. G. LEIMBACH, BROWNHELM STATION, OHIO.

1. Dairying for Profit.
2. Lime—Its Use and Abuse.
3. Making Wornout Farms Productive.
4. Our Meadows.
5. Raising Oats.
6. Potato Culture.
7. The Call of the City. (Night.)

REV. J. F. MCCOLM, SOUTH LEBANON, OHIO.

1. The Country Home—How to Make it Ideal.
2. The Country School—What Shall we do With It?
3. The Country Church—Its New Opportunity.
4. Our Country—Its Resources; Its Perils; Its Possible Future. (Night.)
5. Abraham Lincoln. (Night.)

Terms: \$5.00 per day and expenses.

T. J. MILLER, BOWLING GREEN, OHIO.

1. The Central Thought in Successful Farming.
2. Corn—Its Culture and Value.
3. Shall We Grow Wheat?
4. Why Not Raise Cattle?
5. Value of Poultry.
6. Does the Farm Pay? (Night.)
7. Our Duty to Our Young People. (Night.)

G. E. MORRIS, ROXBURY, OHIO.

1. Farm Conveniences—40 minutes.
2. Ensilage—40 minutes.
3. The Growing and Marketing of Apples—40 minutes.
4. Some Legumes—And How to Gain Thereby—35 minutes.
5. Fertilizer Problem for a Rundown Farm—35 minutes.
6. The Farmer of the Future—30 minutes. (Night.)

E. D. POWELL, FINDLAY, OHIO.

1. Live Stock Farming—30 minutes.
2. Growing Alfalfa and Clover—30 minutes.
3. Methods of Increasing Soil Fertility—30 minutes.
4. Needs of Modern Farming—30 minutes.
5. The Ohio Boy—40 minutes. (Night.)
6. Growing and Handling the Corn Crop—30 minutes. (Night.)

Terms: \$5.00 per day and expenses.

Phone 869 W.

HARRY D. SWIGART, CLINTON, OHIO.

1. Soil Improvement—30 minutes.
2. Tile Drainage—20 minutes.
3. Liming the Soil—30 minutes.
4. Intelligent Purchase and Use of Fertilizers—40 minutes.
5. Sweet Clover—20 minutes.
6. Our Experiment Station—20 minutes.

Terms: \$5.00 per day and expenses.

WILL H. TOPE, CARROLLTON, OHIO.

1. The Green Pastures Over the Hill—45 minutes.
2. Care of the Farm Orchard—45 minutes.
3. Helps for the Farmer who is Short on Cash—30 minutes.
4. Practical Points on Soil Fertility—45 minutes.
5. Profit in Hogs—30 minutes.

Phone Harlem Springs Exchange.

MRS. W. O. WICKERSHAM, BELLE CENTER, OHIO.

1. The House and its Care—30 minutes.
2. Keep the Young People on the Farm—20 minutes.
3. Home Care of Sick Children—30 minutes.

Bell Phone 638.

J. O. PORTERFIELD, BELMONT, OHIO.

1. The Good Corn Grower.
2. Clovers—Shall We Grow Them?
3. All Around the Farm.
4. Breeding and Caring for Live Stock.
5. Home, Sweet Home. (Night.)

Terms: \$5.00 per day and expenses.

JAMES A. SPEAR, NEW VIENNA, OHIO.

1. Orchards—20 minutes.
2. Alfalfa—20 minutes.
3. Dairying—30 minutes.
4. Cultivation of the Mind in the Farm Home—20 minutes.
5. Agricultural Citizenship—30 minutes. (Night.)

S. A. STEDRONSKY, HUDSON, OHIO.

1. Feeding for the Production of Eggs.
2. Profitable Marketing of Eggs.
3. Rearing of Chicks.
4. Necessary Appliances for Practical Poultry Work.
5. Failures in the Poultry Business and Causes.

Terms: \$5.00 per day and expenses.

C. H. SWAN, APPLE CREEK, OHIO.

1. Home Mixing of Commercial Fertilizers—30 minutes.
2. Spraying the Farm Orchard—25 minutes.
3. Wheat—20 minutes.
4. Manure and Lime—30 minutes.
5. The Boy's Opportunity—35 minutes.

Terms: \$3.00 per day and expenses.

Telephone Apple Creek.

H. W. WEISGERBER, SALEM, OHIO.

1. Bird Quiz—30 to 60 minutes. (Afternoon.)
2. Birds of Prey and the Value of Birds to Agriculture. (Night.)
Lantern slides to accompany talks.
Lantern slides showing weather map, with a talk on weather.

Terms: \$5.00 per day and expenses.

ALFRED M. WHITE, BALTIMORE, OHIO.

1. How to Make the Hen Pay—40 minutes.
2. Twenty-two Years' Experience Raising Early Lambs—20 minutes.
3. Balanced Rations and How to Compute Them—45 minutes.
4. Home Mixing of Fertilizers—How and Why—20 minutes.
5. How to Increase our Corn Yield—30 minutes.
6. Transition in Farm Life—20 minutes. (Night.)

TRELL W. YOCUM, MECHANICSBURG, OHIO

1. Queen Alfalfa.
2. The Call of the Red Gods.

\$10.00 and expenses for single lecture.

\$15.00 and expenses for both lectures.

FARMERS' INSTITUTES

**To be held under the Auspices of the Agricultural Commission for the
Institute Season of 1913-1914**

**List of Counties, Places and Dates of Institutes, Names of Speakers, and Names
and Postoffice Addresses of Presidents and Secretaries**

(793)

County.	Place and Date.	Speakers.	President and Postoffice.	Secretary and Postoffice.
Adams	Manchester.....	Burlingame, Funk	Martin Ellis, Manchester.	J. D. Mott, Manchester.
	December 31-January 1			Leslie Wittenmeyer, Peebles, R. R.
	Peebles.....	Hunmon, Copeand	H. C. Pemberton, Locust Grove	J. W. Wamsley, Wamsley.
	January 2-3			
	Wamsley.....	Brigham, Hoddy	J. E. Liston, Otway	
	January 5-6			
Allen	West Union.....	Buchanan, Blackford	W. S. Kincaid, West Union	
	January 12-13			
	Seaman.....	Gordon, Elliott, (C. W.)	I. C. Howard, Seaman, R. R. 1	H. M. McCreight, Seaman, R. R. 2.
	December 1-2			
	Delphos.....	Smith, Funk	J. H. Hendrickson, Delphos, R. R.	Art O. Wulforth, Delphos.
	February 9-10			C. K. Hay, Harrod.
Ashland	Harrodsburg.....	Markley, Traylor	J. A. Grubb, Harrod	W. E. Barber, Beaverdam.
	February 9-10			Bert Cloore, Lafayette.
	Beaverdam.....	Houskeeper, Carmichael	W. H. Soles, Beaverdam	
	February 4-5			
	Lafayette.....	Blackford, Martindale	John Binkley, Lafayette	
	January 26-27			
Ashabula	Loudonville.....	Gordon, Bowsher	Scott Lozier, Lakeville	D. C. Nouse, Loudonville.
	January 21-22			Alvin Fridline, Jeromesville.
	Jeromesville.....	Smith, Burkholder	Ed. Hostettler, Jeromesville, R. R.	G. Roy Crumrine, Nova, R. R.
	December 15-16			
	Nova.....	Wagner, Brenneman	H. D. Richards, Nova, R. R.	
	January 19-20			
Athens	Ashland.....	Herrick, Nicodemus	B. F. Zercher, Ashland	U. H. Eberhart, Ashland, R. R. 7.
	December 29-30			
	Savannah.....	Houskeeper, Hoddy	Clayton Harmon, Ashland, R. R.	
	January 26-27			
	Pierpont.....	Smith, Nicodemus	Ernie Cook, Pierpont	Harry Mallory, Andover, R. R.
	January 30-31			Roy Humdretmark, Geneva.
Athens	Geneva.....	Blackford, Miller	G. J. Gumb, Geneva, R. R.	J. H. Davis, Williamsfield.
	January 2-3			R. F. Fritz, Rock Creek.
	Williamsfield.....	Gordon, Cook	J. P. Roberts, Williamsfield	R. P. Miner, Williamsfield.
	January 30-31			
	Rock Creek.....	Blackford, Miller	A. L. Thompson, Rock Creek	E. L. Wilson, New Marshfield.
	December 31-January 1			Arthur Adair, Albany, R. R.
Athens	Lindenville.....	Buchanan, Montgomery	B. S. Jones, Williamsfield	
	January 28-29			
Athens	Athens.....	Markley, Blackford	H. L. Baker, Athens, R. R. 9	
	December 10-11			
Athens	Albany.....	Buchanan, Green	Lee Elliott, Albany, R. R.	
	December 29-30			

Angelaize	Coolville.....	Wagner, Houser (J. S.).....	John Welch, Jr., Cutler, R. R. 2.....	Howard M. Bingham, Coolville.
	December 22-23	Begg, Riggs.....	T. J. Price, Amesville.....	Estelle Goddard, Sharpsburg, R. R.
	Amesville.....	Markley, Scott.....	J. Q. Hull, Athens, R. R. 7.....	H. J. Hokinson, Athens, R. R. 1.
	December 12-13			
	Guyville.....			
	December 3-4			
	New Bremen.....	Hudson, Scott.....	Louis Tangeman, New Bremen, R. R.....	C. V. Huenke, New Bremen.
	January 30-31	Martindale, Blackford.....	G. W. Ronske, Wapakoneta.....	Carl Bowaher, Wapakoneta.
	Oridersville.....	Houskeeper, Carmichael.....	Chas. Fritz, Wapakoneta.....	S. V. Scott, Wapakoneta, R. 3.
	January 30-31	Brigham, Hummon.....	A. H. Mertz, Wapakoneta, R. R. 1.....	Carl Frazier, Uniopolis.
Belmont	Buckland.....			
	February 6-7			
	Uniopolis.....			
	February 11-12			
	Somerton.....	Spencer, Burlingame.....	Geo. O. Thomas, Jerusalem.....	Fred Howell, Somerton.
	December 26-27	Nicodemus, Moore.....	Wm. Wheeler, Bridgeport.....	Horace W. Steer, Dillonvale, R. R. 1.
	Colerain.....	Nicodemus, Moore.....	W. D. Lewis, Lamira.....	A. C. Perkins, Armstrong's Mills.
	December 8-9	Hayne, Allen.....	Frank O. Wise, Bellaire, R. R. 2.....	Geo. Harris, Bellaire, R. R. 2.
	December 10-11	Buchanan, Elliott (C. W.).....	L. H. Gregg, Belmont, R. R. 3.....	Benj. Shaver, Belmont, R. R. 3.
	Bellaire.....			
Brown	December 22-23			
	Chestnut Level.....			
	December 12-13			
	Fayetteville.....	Gordon, Elliott (C. W.).....	Stephen O'Connor, Blanchester.....	Hubert McCafferty, Fayetteville.
	December 3-4	Brigham, Robertson.....	J. T. Huggins, Sardinia.....	A. L. Druhot, Sardinia.
	Sardinia.....	Hayne, Riggs.....	R. R. Stratten, Hamersville.....	T. H. Patten, Hamersville.
	January 2-3	Martindale, Tressler.....	J. R. Williams, Decatur.....	C. C. Martin, Ripley, R. R. 3.
	Hamersville.....	Hayne, Riggs.....	J. D. White, Ripley, R. R. 1.....	J. L. DeVore, Ripley, R. R. 1.
	December 5-6			
	December 17-18			
Butler	Ripley.....			
	December 3-4			
	Trenton.....	Smith, Harsh.....	Jas. Overpeck, Hamilton, R. R. 7.....	A. T. Imhoff, Trenton, R. R. 1.
	December 29-30	Martindale, Brenneman.....	L. M. Oylar, Okeana.....	Ernest Clawson, Okeana.
	Okeana.....	Houskeeper, Hummon.....	Paul Mitchell, Middletown, R. R.....	Leon J. Schrock, Kyle.
	December 12-13	Begg, Gossard.....	H. D. Hinkley, Oxford.....	W. C. Mohr, Oxford.
	Monroe.....			
	February 20-21			
	Oxford.....			
	January 12-13	Wagner, Hoddy.....	M. C. Thomas, Hamilton.....	Karl H. Heiser, Hamilton.
	Hamilton.....			
	December 10-11			

County.	Place and Date.	Speakers.	President and Postoffice.	Secretary and Postoffice.
Carroll.....	Magnolia.....	Carmichael, Knisely.....	Ralph Dawnes, Magnolia.....	Flavius Brown, Magnolia.
	January 5-6	Gordon, Thomas.....	L. S. Gamble, Delroy.....	D. P. Quin, Sherodsville.
	Sherodsville.....	Spencer, Hoddy.....	Will H. Tope, Carrollton.....	Jas. A. Lawrence, Harlem Springs.
	February 9-10	Houskeeper, Burlingame.....	Ferd C. Brooks, Carrollton.....	
	Harlem Springs.....	Nicodemus, Scott.....	W. A. Rutledge, Carrollton, R. R. 4.....	
	December 18-20	Begg, Galehouse.....	Frank Petty, Urbana.....	R. P. Buchanan, Carrollton, R. R. 3.
	Carrollton.....	Begg, Coffey.....	Geo. W. Kizer, Urbana.....	J. A. McClellan, Cable.
	January 5-6	Hudson, Montgomery.....	Edward Connolly, Cable, R. R.....	Elba J. W. Pence, St. Paris, R. R.
	Petersburg.....	Hummon, Harsh.....	C. N. Strayer, West Liberty, R. R. 1.....	R. J. Miller, Mingo.
	December 17-18	Brigham, Tressler.....	W. G. Lincoln, Woodstock.....	Grover Adams, Degraff, R. R. 4.
Champaign.....	Kingscreek.....	Robertson, Tressler.....	J. M. Runyan, Mechanicsburg.....	Chas. E. Moran, Milford Center, R. R. 1
	December 26-27	Brigham, Green.....	T. L. Calvert, Selma.....	Cecil Hunter, Catawba.
	Magrew.....	Harsh, Hummon.....	Guy Studebaker, New Carlisle.....	O. T. Battin, Selma.
	December 29-30	Hudson, Montgomery.....	W. S. Jenkins, New Carlisle, R. R. 8.....	Walter Funderburg, New Carlisle.
	Mingo.....	Hudson, Scott.....	S. S. Jenkins, New Carlisle.....	O. H. Rust, North Hampton.
	February 4-5	Gordon, Elliott (C. W.).....	J. B. Holman, Eastwood, R. R. 1.....	Frank J. Johnston, New Carlisle.
	Spring Hill.....	Hayne, Riggs.....	John Carnes, New Richmond.....	W. L. Runyan, Williamsburg.
	January 28-29	Burkholder, Tressler.....	L. B. Pollock, Milford, R. R.....	Frank Reed, New Richmond.
	Woodstock.....	Burkholder, Tressler.....	P. E. Wilson, Bethel.....	Hayward D. Gatch, Milford.
	February 16-17	Martindale, Tressler.....	B. E. Gardiner, Bethel, R. R.....	Chas. Taylor, Bethel.
Clark.....	Catawba.....	Gordon, Elliott (W. P.).....	Salathiel Jackson, Blanchester.....	M. H. McNeill, New Richmond.
	January 12-13	Matheny, Tuttle.....	W. R. Lewis, Wilmington.....	
	Selma.....			Wm. Reynolds, Blanchester.
	January 12-13			J. A. Craig, Wilmington.
	December 15-16			
	Donnelville.....			
	January 30-31			
	North Hampton.....			
	February 6-7			
	New Carlisle.....			
Clermont.....	January 26-27			
	Williamsburg.....			
	December 5-6			
	New Richmond.....			
	December 1-2			
	Milford.....			
	January 9-10			
	Bethel.....			
	January 7-8			
	Laurel.....			
Clinton.....	December 15-16			
	Blanchester.....			
	December 8-9			
	Kingman.....			
	Dec. 31-Jan. 1			

Columbiana	New Vienna.....	Brigham, Tressler.....	A. H. Terrell, New Vienna, R. R. 1.....	Rena L. Edwards, New Vienna, R. R. 3.
	February 20-21	Begg, Coffey.....	John Speer, Wilmington, R. R. 2.....	Dennis Stephens, Wilmington, R. R. 1.
	Port William.....	Burkholder, Tressler.....	P. R. Crist, Midland.....	
	January 2-3			
	Westboro.....			
	January 5-6			
	Moultrie.....	Markley, Dunham.....	C. W. Heim, Moultrie.....	C. E. Essick, Moultrie.
	January 26-27	Gordon, Hoddy.....	W. A. Whinnery, Salem.....	Alma H. French, Garfield.
	Danascus.....			S. S. Weaver, Columbiana.
	February 6-7	Buchanan, Dobbins.....	W. D. Geiger, Columbiana.....	C. L. Wallace, East Palestine.
Coshocton	Columbiana.....	Smith, Harsh.....	Wm. Johnston, East Palestine.....	J. A. Crawford, Elton, R. R. 1.
	January 21-22	Spencer, Hoddy.....	John Patterson, Lisbon, R. R. 6.....	
	East Palestine.....			
	January 23-24			
	West Point.....	Hayne, Blackford.....	J. J. Gamertsfelder, Brinkhaven.....	H. H. Hagsbarger, Brinkhaven.
	December 17-18	Wagner, Ballou.....	D. C. Baker, Walhonding.....	C. S. Kirch, Walhonding.
	Tiverton.....	Baldwin, Burkholder.....	Harry Bucklew, Blissfield.....	H. C. Koch, Blissfield.
	December 15-16	Begg, Houser (J. S.).....	J. L. Myers, Tunnell Hill.....	C. A. Giffin, Tunnel Hill.
	Walhonding 2-3	Buchanan, Blackford.....	Jos. Robinson, Coshocton, R. R. 7.....	Carl S. Huff, Coshocton, R. R. 7.
	February 2-3			
Crawford	January 16-17	Gordon, Thomas.....	Edward Faith, New Washington, R. R. 1.....	S. L. French, Tiro, R. R. 1.
	January 16-17	Buchanan, Thomas.....	Jas. Morrow, Tiro, R. R. 1.....	Mitchel Winemitter, Crestline, R. R. 1.
	Perry Grange Hall.....	Houskeeper, Hoddy.....	W. S. Keiss, Bucyrus.....	A. J. Baell, Bucyrus.
	January 30-31	Begg, Crumley.....	Samuel Shoemaker, Crestline.....	Aaron Markle, Tiro, R. R. 2.
	Bethlehem Grange Hall (near Randall Sta.).....			
	January 10-17	Begg, Bailou.....	E. P. Ellett, Bedford.....	H. B. Walton, Bedford.
	New Washington.....	Matheny, Moore.....	O. H. Elster, Olmstead Falls.....	E. R. Miller, Olmstead Falls.
	January 7-8	Wagner, Brenneman.....	Wm. O. Fetterman, Strongsville.....	R. Gibbons, Strongsville.
	Tiro.....	Wagner, Brenneman.....	A. Dawson, South Euclid.....	Geo. Gilmore, Gates Mills.
	February 11-12	Markley, Dunham.....	Harvey Bratton, Brecksville.....	Harry H. Perry, Brecksville.
Cuyahoga	Bucyrus.....			
	January 28-29			
	Crestline.....			
	January 23-24			
	Bedford.....			
	February 9-10			
	Olmstead Falls.....			
	December 22-23			
	Strongsville.....			
	January 21-22			

County.	Place and Date.	Speakers.	President and Postoffice.	Secretary and Postoffice.
Darke	Lightsville..... January 23-24	Montgomery, Hammond.....	R. W. Goodall, Versailles.....	P. W. Klipschne, Bradford, R. R. 2.
	New Madison..... February 16-17	Wagner, Cook.....	T. L. Howell, Arcanum.....	C. R. Smeiker, New Madison.
	Ansonia..... December 31-January 1	Wagner, Galehouse.....	Frank Linville, Ansonia.....	R. K. Beam, Ansonia.
	Versailles..... January 28-29	Hudson, Scott.....	Albert Wagner, Rosburg.....	J. M. Horney, Rosburg.
	Gettysburg..... February 4-5	Nicodemus, Hummon.....		L. N. Reed, Gettysburg.
	Defiance..... February 9-10	Brigham, Hummon.....	H. H. Folk, Defiance.....	J. B. Elliott, Defiance.
Defiance	Sherwood..... February 16-17	Smith, Hoddy.....	W. F. Moats, Sherwood.....	Arthur Miller, Sherwood.
	Ney..... December 26-27	Herrick, Hummon.....	Carl G. Feldner, Ney.....	H. A. Sell, Nay.
	Hicksville..... January 12-13	Smith, Harsh.....	W. F. Kline, Hicksville.....	Geo. Batchelor, Hicksville.
	Ashley..... February 27-28	Brigham, Harsh.....	Geo. L. Sherwood, Ashley, R. R. 1.....	A. F. Potter, Leonardsburg.
	Sunbury..... December 10-11	Baldwin, Bugby.....	Chas. Hoover, Galena.....	Frank Cleveland, Galena.
	Delaware..... February 6-7	Buchanan, Hayne.....	Jas. E. Taggart, Delaware.....	T. A. Oswald, Delaware.
Delaware	Ostrander..... February 2-3	Markley, Tuttle.....	J. L. Stimmel, New Dover, R. R. 1.....	G. B. Turney, Ostrander.
	Peachblow..... February 16-17	Gordon, Blackford.....	Geo. Cleveland, Galena, R. R. 1.....	
	Milan..... February 16-17	Buchanan, Dunham.....	D. C. Smith, Norwalk.....	Mrs. Mary Oetzel, Milan.
	Castalia..... February 4-5	Scott, Tressler.....	J. S. Graves, Jr., Castalia, R. R. 2.....	A. H. Prout, Jr., Castalia, R. R. 1.
	Perkins..... January 19-20	Hummon, Nicodemus.....	Ross D. L. Rawson, Sandusky, R. R. 1.....	L. J. Parker, Sandusky, R. R. 1.
	Berlin Heights..... February 2-3	Scott, Tressler.....	I. W. Hoag, Berlin Heights.....	W. L. Douglass, Huron.
Fairfield	Carroll..... January 16-17	Brigham, Brenneman.....	Geo. W. Bishop, Carroll.....	Wm. Walter, Carroll.
	Bremen..... December 22-23	Brigham, Green.....	H. M. Scholl, Bremen.....	Clement Graffis, Bremen.
	Amanda..... December 17-18	Wagner, Bowshe.....	W. E. Armstrong, Amanda.....	C. C. Webb, Amanda.
	New Salem..... December 17-18	Begg, Elliott (C. W.).....	E. W. Geiger, Thornville, R. R. 2.....	Perry Grove, Thornville.

Rushville..... December 29-30	Hayne, Huddy.....	J. H. Pultz, Rushville.....	C. C. Swinehart, Rushville.
Bloomington..... December 22-23	Brenneman, Dunham.....	R. G. Jefferson, Madison Mills.....	L. W. Heinlein, Bloomingburg.
Jeffersonville..... January 16-17	Scott, Tressler.....	Reuben Rankin, Parrotts.....	O. A. Allen, Jeffersonville.
Moons..... December 26-30	Burlingame, Funk.....	Wm. McCord, Washington C. H.....	A. W. Haines, Washington C. H.
Hilliard..... December 12-13	Wagner, Huddy.....	C. W. Smiley, Hilliard.....	Mrs. W. B. Smith, Hilliard.
Groveport..... December 31-January 1	Hudson, Hayne.....	C. A. Stevenson, Canal Winchester.....	R. P. Dowler, Groveport.
New Albany..... February 23-24	Wagner, Gossard.....	F. C. Wilson, Blacklick.....	F. F. Babbitt, New Albany.
Alton..... January 12-13	Hudson, Montgomery.....	Walter W. Jones, Hilliard, R. R. 5.....	Wm. Anderson, Galloway.
Pleasant Corners..... February 25-26	Brigham, Harsh.....	Harry Rinebaugh, Grove City.....	M. E. Miller, Orient, R. R.
Archbold..... December 19-16	Baldwin, Harsh.....	J. C. Leu, Archbold.....	A. G. Siegel, Archbold.
Delta..... February 25-26	Buchanan, Scott.....	M. B. Hoyt, Delta.....	S. McCullough, Delta.
Manora..... February 9-10	Scott, Harsh.....	R. A. Young, Metamora.....	L. C. Warrenfelt, Metamora.
Wauson..... February 11-12	Scott, Harsh.....	R. H. Pernald, Wauson.....	Harmon, Gasche, Wauson.
Fayette..... February 4-5	Brigham, Blackford.....	A. E. Woodard, Fayette.....	Geo. K. Russell, Fayette.
Walnut M. E. Church..... January 2-3	Buchanan, Green.....	J. B. Massie, Patriot.....	John T. Hall, Patriot.
Cheshire..... January 19-20	Hayne, Tressler.....	John H. Reynolds, Cheshire.....	H. E. Shaffer, Cheshire, R. R.
Fairfield Church..... (Green Township) December 3-4	Burlingame, Blackford.....	E. R. McCormick, Gallipolis, R. R. 3.....	C. J. McCormick, Gallipolis, R. R. 3.
Vinton..... December 5-6	Begg, Elliott (W. P.).....	T. J. Jones, Vinton, R. R. 3.....	W. H. Hartsook, Vinton, R. R. 3.
Chesterland..... February 4-5	Smith, Funk.....	A. C. Perry, Chesterland.....	H. L. Williams, Chesterland.
Thompson..... December 19-20	Smith, Burkholder.....	O. A. Bartlett, Painesville.....	R. J. Wilbur, Thompson, R. R. 1.
Burton..... December 29-30	Miller, Blackford.....	Fred E. Wilmot, East Claridon.....	A. O. Newcomb, Burton.
Montvill..... January 28-29	Smith, Nicodemus.....	A. W. Wheelock, Chardon, R. R. 6.....	W. E. Baldwin, Montville.
Chardon..... February 11-12	Begg, Ballou.....	R. A. Douglass, Chardon.....	
Fayette.....			
Franklin.....			
Fulton.....			
Gallia.....			
Geauga.....			

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Greene.	Jamestown..... February 16-17	Houskeeper, Hummon.....	C. D. Lackey, Jamestown.....	E. H. Smith, Jamestown.
	Ballpork..... December 17-18	Brigham, Green.....	A. L. Gilbert, Spring Valley.....	F. L. Wilson, Centerville, R. R. 1.
	Spring Valley..... February 18-19	Brigham, Tressler.....	T. M. Scarff, Spring Valley.....	Herman Evans, Spring Valley.
	Cedarville..... December 31-January 1	Begg, Coffey.....	Clayton McMillan, Cedarville.....	Hugh Turnbull, Jr., Cedarville.
	New Burlington..... February 9-10	Hudson, Blackford.....	Rev. H. Killinder, New Burlington.....	Jas. Moecher, New Burlington, R. R. 1
	Fairview..... January 7-8	Markley, Robertson.....	C. M. Ault, Fairview.....	Wm. Nuzum, Fairview.
	Antrim..... December 19-20	Hayne, Blackford.....	A. H. Johnston, Antrim.....	A. N. Glasgow, Freeport, R. R. 5
	Pleasant City..... December 17-18	Markley, Elliott (W. P.).....	J. A. Kackley, Pleasant City.....	C. L. Stranathan, Pleasant City.
	Byesville..... December 29-30	Houskeeper, Spencer.....	W. F. Rogers, Lore City, R. R. 2.....	W. A. Hutton, Byesville,
	Kimbolton..... January 12-13	Spencer, Cook.....	.....	H. J. Beatenhög, Kimbolton.
Hamilton.	Springdale..... December 31-January 1	Smith, Harsh.....	A. R. Moist, Glendale.....	John Scheener, Cincinnati Sta. R. R. 5
	Miami..... January 9-10	Baldwin, Dobbins.....	R. E. Simmonds, Cleves, R. R. 1.....	Box 104. Harry Lemon, Cleves, R. R. 2.
	New Haven..... February 6-7	Hummon, Nicodemus.....	Jas. McClure, Harrison, R. R. 1.....	John Carroll, Harrison, R. R. 2.
	Newtown..... January 2-3	Funk, Burlingame.....	John W. Wilson, Newtown.....	C. Bart Chapman, Madisonville.
	Harrison..... January 2-3	Smith, Harsh.....	S. B. Bowles, Harrison.....	Zarum Simonson, Harrison.
	McComb..... January 5-6	Begg, Smith.....	P. S. Robinson, McComb.....	R. A. Morrison, McComb.
	Vanlue..... February 2-3	Houskeeper, Hummon.....	E. V. Vanlue, Vanlue.....	Ora J. Bright, Vanlue.
	Van Buren..... February 9-10	Baldwin, Copeland.....	W. S. Whetstone, Van Buren.....	L. A. Hennmenger, Van Buren.
	Mt. Cory..... January 26-27	Brigham, Dobbins.....	R. O. Comer, Mt. Cory.....	M. S. King, Mt. Cory.
	Jenena..... January 23-24	Martindale, Herrick.....	John Hull, Jenena.....	Ray Baumgardner, Jenena.
Hardin.	Forest..... January 28-29	Knisley, Blackford.....	Isa R. Liles, Forest.....	Ivan Alter, Forest.
	Kenton..... January 12-13	Gordon, Burlingame.....	Wilson Lowe, Kenton.....	Jesse A. Strahm, Kenton, R. R. 6.

Harrison	Dunkirk..... January 23-24	Brigham, Scott.....	J. O. Sherrick, Dunkirk.....	H. D. Jones, Dola.....
	Ada..... January 19-20	Begg, Crumley.....	C. B. Hicknell, Ada.....	J. L. Hull, Alger.....
	Roundhead..... February 25-26	Begg, Brennenan.....	J. E. Mertz, Roundhead.....	
Henry	Bowerton..... December 12-13	Nicodemus, Moore.....	J. C. McGuire, Conotton, R. R. 2.....	John E. Warner, Bowerston, R. R. 1.....
	Jewett..... December 8-9	Buchanan, Elliott (C. W.).....	Stein Lawthers, Jewett.....	E. H. Pocock, Jewett.....
	New Rumley..... December 31-January 1	Houskeeper, Spencer.....	Aaron Russell, New Rumley.....	H. O. Manbeck, New Rumley.....
	Piedmont..... January 12-13	Markley, Hoddy.....	W. B. McAdam, Piedmont.....	Ralph Arnold, Freeport.....
Highland	Cassville..... December 22-23	Spencer, Burlingame.....	F. M. Beall, Cadiz.....	E. L. Garner, Cadiz.....
	McClure..... February 20-21	Smith, Hoddy.....	Harry Rothenberger, Napoleon.....	Wm. Franz, Holgate.....
	Liberty Center..... February 6-7	Brigham, Blackford.....	Harry Rothenberger, Napoleon.....	Wm. Franz, Holgate.....
Hocking	Hamler..... February 15-16	Baldwin, Nicodemus.....	Harry Rothenberger, Napoleon.....	
	Sharon Church..... January 19-20	Montgomery, Hammond.....	Harry Rothenberger, Napoleon.....	
	Deshler..... January 7-8	Begg, Smith.....	Geo. F. Dunn, Deshler.....	Chas. Gorsuch, Deshler.....
Hocking	Lynchburg..... December 31-January 1	Copeland, Hummon.....	J. H. Tedrick, Hillsboro, R. R. 6.....	W. R. Thompson, Hillsboro, R. R. 6.....
	Sugar-tree Ridge..... December 10-11	Gordon, Elliott (W. P.).....	H. H. Redkey, Winchester, R. R. 2.....	J. D. Booth, Hillsboro, R. R. 12.....
	Rainsboro..... December 19-20	Martindale, Tressler.....	E. C. Roads, Hillsboro, R. R. 4.....	Mrs. W. T. Hodges, Greenfield, R. R. 4.....
	Leesburg..... January 2-3	Matheny, Tuttle.....	John Shackleford, Leesburg.....	J. B. Fernow, Leesburg.....
Hocking	Sinking Springs..... December 31-January 1	Brigham, Robertson.....	Enos Stewart, Marshall.....	F. M. Garman, Peebles, R. R. 4.....
	Logan..... December 19-20	Wagner, Bowsher.....	C. W. Cox, Logan, R. R. 1.....	I. L. Krinn, Logan, Star Route.....
	Laurelville..... January 9-10	Brigham, Hoddy.....	Chas. L. Armstrong, Kingston, R. R.....	G. W. Hartsough, Laurelville, R. R. 1.....

County.	Place and Date.	Speakers.	President and Postoffice.	Secretary and Postoffice.
Holmes.	Glenmont.....	Begg, Houser (J. S.).....	L. H. Watts, Glenmont, R. R.	J. W. Cross, Glenmont, R. R.
	January 28-29 Holmesville.....	Spencer, Thomas.....	John Taylor, Holmesville.....	Luther F. Brushy, Holmesville.
	January 19-20 Berlin.....	Markley, Bugby.....	J. J. Hershberger, Berlin.....	W. C. Meyer, Berlin.
	January 23-24 Kilbuck.....	Buchanan, Scott.....	Walter Patterson, Kilbuck.....	Walter Gray, Kilbuck.
	February 27-28 Mt. Hope.....	Buchanan, Hayne.....	E. A. Kraus, Benton.....	Chas. O. Snyder, Benton.
Huron.	February 2-3 Townsend.....	Nicodemus, Hummon.....	N. H. House, Collins R. R. 1.....	A. W. Robbins, Norwalk, R. R.
	January 23-24 Olena.....	Houskeeper, Blackford.....	E. W. Butler, Olena.....	Fred. Jarrett, Olena.
	January 21-22 Greenwich.....	Moore, Higley.....	C. E. Temple, Shiloh.....	W. Miller, Greenwich.
	December 5-6 Wakeman.....	Brigham, Dobbins.....	M. A. Shelton, Wakeman.....	W. W. Whiton, Wakeman.
	January 30-31 North Fairfield.....	Begg, Ballou.....	E. D. Burras, North Fairfield.....	Branch Perry, North Fairfield.
Jackson.	February 13-14 Cove.....	Gordon, Kibler.....	W. J. Whitman, Glade.....	O. L. Armstrong, Jackson, R. R. 3.
	December 15-16 Valley Grange Hall.....	Begg, Elliott (W. P.).....	R. D. Thomas, Jackson, R. R. 6.....	F. H. Johnson, Jackson, R. R. 5.
	December 3-4 Oak Hill.....	Houskeeper, Robertson.....	D. R. Williams, Oak Hill, R. R. 5.....	Herman Jones, Oak Hill, R. R. 1.
	December 19-20 Jackson.....	Brigham, Brenneman.....	J. E. Newell, Jackson.....	
	January 12-13 Leo.....	Buchanan, Green.....	J. W. Lively, Wellston.....	W. E. Storer, Coalton, R. R. 1.
Jefferson.	January 7-8 Adena.....	Markley, Hody.....	A. H. Reynolds.....	T. A. Sutherland, Adena, R. R. 1.
	January 16-17 Smithfield.....	Buchanan, Elliott (C. W.).....	J. B. Francis, Smithfield.....	H. M. Thompson, Adena, R. R. 1.
	December 10-11 Bloomington.....	Nicodemus, Markley.....	E. J. Gilkenson, Reed's Mills.....	S. V. Wallace, Bloomington.
	December 22-23 Richmond.....	Markley, Bugby.....	Wm. A. Johnston, E. Springfield.....	S. A. Watt, Steubenville, R. R. 2.
	January 19-20 Mt. Pleasant.....	Houskeeper, Spencer.....	Chas. F. Scott, Mt. Pleasant.....	Geo. E. Scott, Mt. Pleasant.
Knox.	January 2-3 Eto.....	Moore, High.....	John L. Wolf, Howard.....	Clem McNabb, Howard.
	December 1-2 Grove Church (nr. Gambier) January 16-17	Spencer, Cook.....	Geo. W. Hayes, Gambier, R. R. 1.....	C. L. V. Wolf, Gambier, R. R. 2.

Levering..... January 2-3 Fredericktown..... February 4-5 Democracy..... December 29-30	Gordon, Dobbins..... Buchanan, Hayne..... Baldwin, Burkholder..... Moore, Kinsely..... Burlingame, Blackford..... Hayne, Houskeeper..... Gordon, Kibler..... Hayne, Houskeeper..... Buchanan, Green..... Markley, Tressler..... Hayne, Allen..... Brigham, Scott..... Gordon, Dobbins..... Wagner, Houser (J. S.).....	L. D. Levering, Fredericktown, R. R..... Fred Amos, Fredericktown..... Geo. A. Steinmetz, Democracy..... L. E. Hull, Painesville..... P. C. Sissler, Ironton, R. R. 2..... L. A. Wiseman, Sherritta..... Geo. W. Trimbo, Hanging Rock..... John F. Banks, Chesapeake..... J. L. Templeton, Proctorville..... O. S. Stevens, Newark, R. R. 1..... Nathan Mack, Glenford..... V. C. Stires, Alexandria..... A. W. Horner, Newark, R. R..... C. F. Green, Pataaskala.....	W. H. Boose, Fredericktown. Herbert E. Leedy, Fredericktown. John Molts, Howard, R. R. 2. Chas. Manchester, Perry. E. S. Kitts, Kitts Hill. J. R. Cooper, Waterloo. U. T. Drummond, Hanging Rock. B. E. Konns, North Kenova. U. T. Cox, Proctorville. O. E. Cooperrider, Newark, R. R. 6. Helen McMullen, Glenford. Glen Davison, Alexandria. J. K. McKelvy, Vanatta, R. R. G. M. Conine, Pataaskala. Clyde H. Hooley, Cable, R. R. 3. W. S. Hamilton, East Liberty. C. A. Underwood, West Mansfield. Maurice Albaugh, Quincy. Harry Noble, Belle Center.
Perry..... December 9-20 Sugar Creek Church..... (Strobel) December 1-2 Waterloo..... December 10-11 Hanging Rock..... December 19-20 Delta M. E. Church..... (South Point) December 12-13 Potomac Church..... (Near Proctorville) January 5-6 Franklin Township..... (Grange Hall) December 29-30 Brownsville..... December 26-27 Alexandria..... January 19-20 Vanatta..... December 31-January 1..... Pataaskala..... December 26-27	Houskeeper, Nicodemus..... Wagner, Hummon..... Baldwin, Bugby..... Wagner, Coffey..... Gordon, Blackford..... Scott, Brenneman..... Wagner, Hayden..... Scott, Brenneman.....	H. H. Carr, Cable, R. R. 3..... C. M. Van Hynning, East Liberty..... I. R. Winner, West Mansfield..... E. T. Lowe, Quincy..... Edison Brown, Belle Center..... James Rundie, Columbia Station..... Reuben Miller, Amherst, R. R. 3..... W. Granger, Kipton.....	Chas. Stephens, Columbia Station. Frank Peck, Amherst, R. R. 3. J. M. Whitney, Wakeman.
Lawrence..... December 9-20 Sugar Creek Church..... (Strobel) December 1-2 Waterloo..... December 10-11 Hanging Rock..... December 19-20 Delta M. E. Church..... (South Point) December 12-13 Potomac Church..... (Near Proctorville) January 5-6 Franklin Township..... (Grange Hall) December 29-30 Brownsville..... December 26-27 Alexandria..... January 19-20 Vanatta..... December 31-January 1..... Pataaskala..... December 26-27	Houskeeper, Nicodemus..... Wagner, Hummon..... Baldwin, Bugby..... Wagner, Coffey..... Gordon, Blackford..... Scott, Brenneman..... Wagner, Hayden..... Scott, Brenneman.....	H. H. Carr, Cable, R. R. 3..... C. M. Van Hynning, East Liberty..... I. R. Winner, West Mansfield..... E. T. Lowe, Quincy..... Edison Brown, Belle Center..... James Rundie, Columbia Station..... Reuben Miller, Amherst, R. R. 3..... W. Granger, Kipton.....	Chas. Stephens, Columbia Station. Frank Peck, Amherst, R. R. 3. J. M. Whitney, Wakeman.
Lake..... December 9-20 Sugar Creek Church..... (Strobel) December 1-2 Waterloo..... December 10-11 Hanging Rock..... December 19-20 Delta M. E. Church..... (South Point) December 12-13 Potomac Church..... (Near Proctorville) January 5-6 Franklin Township..... (Grange Hall) December 29-30 Brownsville..... December 26-27 Alexandria..... January 19-20 Vanatta..... December 31-January 1..... Pataaskala..... December 26-27	Houskeeper, Nicodemus..... Wagner, Hummon..... Baldwin, Bugby..... Wagner, Coffey..... Gordon, Blackford..... Scott, Brenneman..... Wagner, Hayden..... Scott, Brenneman.....	H. H. Carr, Cable, R. R. 3..... C. M. Van Hynning, East Liberty..... I. R. Winner, West Mansfield..... E. T. Lowe, Quincy..... Edison Brown, Belle Center..... James Rundie, Columbia Station..... Reuben Miller, Amherst, R. R. 3..... W. Granger, Kipton.....	Chas. Stephens, Columbia Station. Frank Peck, Amherst, R. R. 3. J. M. Whitney, Wakeman.
Lucking..... December 9-20 Sugar Creek Church..... (Strobel) December 1-2 Waterloo..... December 10-11 Hanging Rock..... December 19-20 Delta M. E. Church..... (South Point) December 12-13 Potomac Church..... (Near Proctorville) January 5-6 Franklin Township..... (Grange Hall) December 29-30 Brownsville..... December 26-27 Alexandria..... January 19-20 Vanatta..... December 31-January 1..... Pataaskala..... December 26-27	Houskeeper, Nicodemus..... Wagner, Hummon..... Baldwin, Bugby..... Wagner, Coffey..... Gordon, Blackford..... Scott, Brenneman..... Wagner, Hayden..... Scott, Brenneman.....	H. H. Carr, Cable, R. R. 3..... C. M. Van Hynning, East Liberty..... I. R. Winner, West Mansfield..... E. T. Lowe, Quincy..... Edison Brown, Belle Center..... James Rundie, Columbia Station..... Reuben Miller, Amherst, R. R. 3..... W. Granger, Kipton.....	Chas. Stephens, Columbia Station. Frank Peck, Amherst, R. R. 3. J. M. Whitney, Wakeman.
Logan..... February 9-10 East Liberty..... February 13-14 West Mansfield..... December 8-9 Quincy..... January 7-8 Belle Center..... February 20-21 Columbia Center..... January 7-8 Brownhelm..... January 26-27 Kipton..... January 5-6	Houskeeper, Nicodemus..... Wagner, Hummon..... Baldwin, Bugby..... Wagner, Coffey..... Gordon, Blackford..... Scott, Brenneman..... Wagner, Hayden..... Scott, Brenneman.....	H. H. Carr, Cable, R. R. 3..... C. M. Van Hynning, East Liberty..... I. R. Winner, West Mansfield..... E. T. Lowe, Quincy..... Edison Brown, Belle Center..... James Rundie, Columbia Station..... Reuben Miller, Amherst, R. R. 3..... W. Granger, Kipton.....	Chas. Stephens, Columbia Station. Frank Peck, Amherst, R. R. 3. J. M. Whitney, Wakeman.
Lorain..... February 9-10 East Liberty..... February 13-14 West Mansfield..... December 8-9 Quincy..... January 7-8 Belle Center..... February 20-21 Columbia Center..... January 7-8 Brownhelm..... January 26-27 Kipton..... January 5-6	Houskeeper, Nicodemus..... Wagner, Hummon..... Baldwin, Bugby..... Wagner, Coffey..... Gordon, Blackford..... Scott, Brenneman..... Wagner, Hayden..... Scott, Brenneman.....	H. H. Carr, Cable, R. R. 3..... C. M. Van Hynning, East Liberty..... I. R. Winner, West Mansfield..... E. T. Lowe, Quincy..... Edison Brown, Belle Center..... James Rundie, Columbia Station..... Reuben Miller, Amherst, R. R. 3..... W. Granger, Kipton.....	Chas. Stephens, Columbia Station. Frank Peck, Amherst, R. R. 3. J. M. Whitney, Wakeman.

County.	Place and Date.	Speakers.	President and Postoffice.	Secretary and Postoffice.
Lorain— Concluded	Grafton January 19-20	Houskeeper, Blackford.	Will Richmond, LaGrange.	F. E. Schriver, Grafton.
	Brighton December 19-20	Baldwin, Harsh.	H. S. Goss, Wellington.	Carl Webber, Wellington.
Lucas	Richfield December 12-13	Baldwin, Bugby.	Bayliss Griffin, Sylvania.	Carroll Tompkins, Sylvania.
	Waterville. February 23-24	Begg, Brennenman.	Francis Sherer, Waterville, R. R. 1.	W. S. Haskins, Waterville, R. R. 2.
	Monclova. February 20-21	Buchanan, Dunham.	Geo. S. Fuller, Monclova.	Clen Lose, Monclova.
	Berkey. January 12-13	Herrick, Hummon.	Jas. E. Sanderson, Berkey.	Oscar L. Murbach, Metamora, R. 17.
	Mt. Sterling. February 20-21	Wagner, Cook.	Herman Carter, Mt. Sterling.	J. S. Core, Mt. Sterling.
Madison.	Plain City. January 26-27	Harsh, Hummon.	Clayton Huff, Plain City.	Harry Marsh, Amlin.
	South Solon. February 2-3	Hudson, Montgomery.	R. B. Gordin, South Solon.	John A. Gossard, South Solon.
	Sumnerford. January 9-10	Hudson, Montgomery.	Valentine Wilson, London, R. R. 2.	J. L. Houston, London, R. R. 2.
	West Jefferson. January 12-13	Nicodemus, Copeland.	Stephen C. Smith, West Jefferson.	Victor Huddle, West Jefferson.
	Greenford. February 4-5	Gordon, Hody.	L. E. Coy, Greenford.	O. J. Messerly, Calla, R. R.
	Canfield. December 15-16	Spencer, Hody.	A. A. Stahl, Greenford.	Phil Wetmore, Canfield.
	Berlin Center. January 23-24	Buchanan, Dobbins.	M. J. Barnes, Berlin Center.	Allen Dickson, Berlin Center.
Mahoning	North Jackson. December 17-18	Moore, Knisely.	H. H. Kirk, North Jackson.	Frank Eikis, North Jackson.
	Sebring. January 30-31	Markley, Dunham.	J. F. Lamborn, Beloit.	C. T. Best, North Benton.
	Waldo. February 18-19	Gordon, Blackford.	S. W. Almindinger, Waldo.	M. K. Anthony, Waldo.
	Agosta. January 16-17	Hudson, Montgomery.	Chas. E. Unsworth, Marion, R. R.	Frank Wilson, Agosta.
	Marion. February 4-5	Markley, Tuttle.	H. W. Johnson, Marion.	L. H. Gathery, Marion.
Marion	Caledonia. February 9-10	Buchanan, Hayne.	J. S. Lyon, Caledonia.	W. H. Thew, Caledonia.
	Morral. December 26-27	Baldwin, Bugby.	Amos Hite, Nevada, R. R. 1.	Harry Richards, Morral.

Medina	Sharon Center..... January 9-10 Brunswick..... January 21-22 Remson Corners..... January 16-17 Medina..... February 6-7 Chatham..... January 26-27 Chester..... December 10-11 Racine..... December 31-January 1 Rutland..... December 15-16 Alfred..... December 17-18 Burlingham..... December 8-9 Chattanooga..... February 13-14 Montezuma..... December 26-27 Neptune..... January 23-24 Wabash..... January 21-22 Cassella..... January 9-10 West Milton..... December 29-30 Covington..... February 11-12 Bradford..... December 26-27 Casstown..... February 18-19 Clarington..... December 15-16 Beallsville..... December 19-20 Woodfield..... January 5-6 Sardia..... January 5-6 Barnhart School House (near Kuhns)..... December 19-20	Scott, Brenneman..... Hunmon, Nicodemus..... Houskeeper, Robertson..... Smith, Funk..... Gordon, Cook..... Beggs, Riggs..... Buchanan, Green..... Houskeeper, Robertson..... Houskeeper, Robertson..... Begg, Riggs..... Brigham, Houser (J. S.)..... Nicodemus, Markley..... Hudson, Matheny..... Hudson, Matheny..... Wagner, Coffey..... Matheny, Tuttle..... Houskeeper, Nicodemus..... Blackford, High..... Wagner, Cook..... Buchanan, Montgomery..... Markley, Elliott (W. P.)..... Markley, Robertson..... Nicodemus, Spencer..... Nicodemus, Scott.....	J. C. Swigart, Sharon Center..... C. W. Damon, Brunswick..... H. W. Coddling, Medina, R. R. 7..... S. H. Hoddinott, Medina, R. R. 1..... H. M. Beach, Spencer, R. R. 2..... A. E. Crew, Pomeroy, R. R. 1..... J. F. Jividen, Racine..... R. B. Carson, Middleport, R. R. 1..... A. C. Guthrie, Flora..... G. T. Henderson, Pratt's Fork..... Adam Fisher, Celina..... Irvin Hole, Montezuma..... R. E. Springer, Celina, R. R. 10..... W. J. White, Celina..... F. J. Goettenweller, Chickasaw, R. R. M. R. Shellabarger, Union R. R. D. M. Darst, Covington..... J. C. Katherman, Bradford..... Albert S. Weddle, Casstown, R. R. C. M. Ward, Clarington..... D. G. Workman, Beallsville..... Geo. Ketzner, Milwonsburg..... J. R. Hissom, Sardia..... J. J. Neubart, Lewisville.....	Wm. Swigart, Sharon Center..... Mrs. G. V. James, Brunswick..... E. L. Chrisman, Sharon Center, R. R. 1..... W. I. Fleck, Seville, R. R. 1..... M. H. Whitney, Spencer, R. R. 2..... H. D. Ashworth, Pomeroy, R. R. 1..... Ernest Cross, Racine..... W. J. Lanning, Rutland, R. R. 2..... Harvey A. Person, Alfred..... L. J. Cowan, Pratt's Fork..... W. K. Smith, Rockford, R. R. 5..... Otis Monroe, Montezuma..... Wm. Wiley, Coldwater..... E. M. Wisinger, West Milton, R. R. 2..... Harry Fox, Covington..... W. A. Zimmerman, Bradford..... Walter W. Knoop, Casstown..... G. W. Cain, Clarington, R. R. 2..... Stanley Seal, Beallsville..... L. A. Drum, Woodfield..... L. Fred Griffon, Sardia..... Harry A. Schaub, Kuhn.....
Meigs				
Mercer				
Miami				
Monroe				

County.	Place and Date.	Speakers.	President and Postoffice.	Secretary and Postoffice.
Montgomery	Beardshear Church (2 miles north Dayton) December 8-9	Martindale, Brenneman	H. H. Barnes, Dayton, R. R. 5	S. B. Weeks, Dayton, R. R. 5.
	Centerville January 5-6	Baldwin, Dobbins	Edgar Wilson, Centerville	Warren H. Keys, Centerville.
	New Lebanon January 10-17	Begg, Gossard	Daniel Apple, New Lebanon	Alger Erbaugh, New Lebanon, R. R.
	Vandalia February 13-14	Houskeeper, Nicodemus	J. Q. A. Cover, Dayton, R. R.	J. A. Klipinger, Dayton, R. R. 1.
	Germanstown January 5-6	Wagner, Coffey	Raymond Albright, Germanstown	E. A. Zehring, Germanstown.
	Neelyville December 5-6	Markley, Scott	B. F. Wells, McConnelville	H. D. McCormick, McConnelville.
	Reinerville December 31-January 1	Brenneman, Hammond	H. C. Combs, Reinerville	W. E. Tannehill, Reinerville.
	Triadelphia January 9-10	Nicodemus, Spencer	C. Haler, Malta, R. R.	W. H. Whitaker, Triadelphia.
	Mountville December 8-9	Markley, Blackford	C. A. Gladden, Gloucester, R. R.	John F. Price, Gloucester, R. R. 2.
	Pleasant Valley December 20-27	Buchanan, Elliott (W. P.)	Geo. McCall, Malta, R. R. 3	Chas. Finley, Malta, R. R. 3.
Morrow	Edison February 27-28	Wagner, Gossard	Ray O. Kelly, Edison, R. R.	W. E. Sergeant, Edison, R. R. 2.
	West Point January 16-17	Nicodemus, Copeland	Bert Rizer, Galion R. R. 4	Elison Garverick, Galion, R. R. 4.
	Merango December 31-January 1	Baldwin, Burkholder	W. L. West, Merango	Murray Pipes, Merango.
	Iberia January 21-22	Brigham, Scott	C. N. McFarland, Iberia	Enola Blair, Iberia.
Muskingum	Westfield January 19-20	Gordon, Bowsher	Homer A. Jacoby	Wm. Clase, Ashley, R. R. 2.
	Dresden February 4-5	Wagner, Ballou	E. S. Gray, Dresden	B. H. Dorsey, Dresden.
	Orsago January 9-10	Markley, Robertson	W. H. Slater, Adamsville	L. R. Abbott, Orsago.
	Bloomfield December 15-16	Nicodemus, Scott	J. B. Rankin, New Concord	A. W. Ross, New Concord.
	Adamsville December 29-30	Gordon, Dobbins	C. E. Dornier, Adamsville	A. M. Doughty, Adamsville.
	Rix Mills January 2-3	Brenneman, Hammond	John W. Crawford, Cumberland	Ray Elliott, New Concord, R. 3.

Noble	Keiths.....	Markley, Blackford.....	T. A. Tilton, Caldwell, R. R. 3.....	S. D. Danford, Caldwell, R. R. 3.
	December 12-13	Buchanan, Montgomery.....	Eugene Harton, Summerfield.....	W. H. Snyder, Summerfield.
	Summerfield.....	Buchanan, Montgomery.....	J. C. Dickinson, Cumberland, R. R. 7.....	J. H. Knight, Cumberland, R. R. 7.
	December 17-18	Buchanan, Montgomery.....	Isaac C. Reed, Quaker City, R. R. 5.....	J. W. Beard, Batesville.
	December 19-20	Markley, Elliott (W. P.).....	Hayne, Tressler.....	L. D. Headley, Dexter City.
	Batesville.....			
	December 15-16			
	Dexter City.....			
	January 21-22			
Otta wa	Port Clinton.....	Buchanan, Dunham.....	H. Roiker, Jr., Port Clinton.....	Ralph Wheaton, Port Clinton.
	February 18-19	Knisely, Goodwin.....	S. T. Dromgold, Elmore.....	Chas. Knieriem, Elmore.
	Elmore.....	Baldwin, Copeland.....	W. C. Burkhardt, Curdice.....	N. C. Miller, Curdice.
	January 26-27		F. H. Allyn, Oak Harbor.....	R. G. Runner, Oak Harbor.
	February 11-12	Dressler, Scott.....	J. G. Strohl, Genoa.....	C. F. Coleman, Genoa.
	Oak Harbor.....	Brigham, Blackford.....		
	February 6-7			
	Genoa.....			
	February 2-3			
Paulding	Grover Hill.....	Herrick, Hummon.....	T. O. Warner, Grover Hill, R. R.....	O. C. Wyatt, Grover Hill.
	December 22-23	Martindale, Herrick.....	Curtis Barnes, Payne.....	W. E. Lehman, Payne.
	Payne.....	Smith, Funk.....	L. S. Ream, Paulding.....	W. V. Kretzinger, Oakwood, R. R. 2.
	January 19-20	Herrick, Hummon.....	R. T. Banks, Antwerp.....	W. F. Fleck, Antwerp.
	Oakwood.....		W. Wilson, Haviland.....	J. R. Williamson, Haviland.
	February 13-14			
	Antwerp.....			
	January 7-8			
	Haviland.....			
	January 9-10			
Perry	Glenford.....	Blackford, Hammond.....	W. H. Parks, Glenford.....	Murray Cooperider, Glenford.
	January 5-6	Begg, Elliott (C. W.).....	F. M. Randolph, New Lexington.....	C. T. Miller, New Lexington.
	Union (Somerset P. O.).....	Gordon, Kibler.....	B. H. Pettitt, Portersville.....	A. C. Maris, Portersville.
	December 15-16	Markley, Tressler.....	Chas. Longstreth, New Lexington, R. R.....	Chas. M. Wilson, New Lexington, R. R. 1
	December 26-27	Wagner, Gossard.....	E. L. Foucht, Thornville.....	H. A. Bope, Thornville.
	Rehoboth.....			
	December 31-January 1			
	Thornville.....			
	February 25-26			
Pickaway	New Holland.....	Hudson, Montgomery.....	Wm. H. Skinner, New Holland.....	C. M. Timmons, New Holland.
	January 5-6	Hudson, Hayne.....	Frank B. Peters, Lockbourne.....	H. E. Noacher, Ashville.
	Ashville.....	Brigham, Harsh.....	C. M. Beatty, Orient, R. R. 1.....	C. W. Davis, Williamsport.
	January 2-3	Blackford, Hammond.....	Edward C. Rector, Williamsport, R. R. 3.....	Chas. W. Baker, Kinderhook.
	Darbyville.....	Brigham, Green.....	Jas. S. Swearingen, Circleville, R. R. 5.....	Wayne A. Hoover, Circleville, R. R. 5.
	February 23-24			
	Kinderhook.....			

County.	Place and Date.	Speakers.	President and Postoffice.	Secretary and Postoffice.
Pike	Latham..... December 12-13	Gordon, Elliott, W. P.....	V. L. McCoy, Latham.....	A. B. Anderson, Latham.
	Piketon..... January 9-10	Buchanan, Green.....	John M. Moore, Waverly, R. R.....	H. C. Dieterich, Piketon.
	Cynthiana..... January 9-10	Blackford, Hammond.....	E. G. Peare, Cynthiana.....	Allen Hiser, Cynthiana.
	Stockdale..... February 13-14.	Hudson, Blackford.....	E. W. Tidd, Stockdale.....	F. M. Beckus, Stockdale.
	Camp..... December 1-2	Begg, Elliott, W. P.....	N. M. Double, Camp.....	W. S. Starr, Camp.
Portage	Kent..... January 23-24	Spencer, Thomas.....	D. H. Herrington, Kent, R. R.....	F. L. Galloway, Kent.
	Aurora..... February 2-3	Smith, Funk.....	Lee H. Gould, Aurora.....	B. Wheeler, Jr., Garrettsville.
	Garrettsville..... December 22-23	Smith, Burkholder.....	Geo. Love, Garrettsville.....	
	Edinburg..... January 21-22	Smith, Harsh.....	W. B. Shilliday, New Milford.....	
	Freedom..... January 30-31	Buchanan, Montgomery.....	W. I. Nichols, Windham, R. R.....	Will Nichols, Mantus, R. R.
Preble	Eaton..... January 9-10	Carmichael, Knisely.....	Silas Buriff, Eaton.....	Chas. Fudge, Eaton.
	West Manchester..... December 10-11	Martindale, Brenneman.....	R. G. Howell, Arcanum.....	H. O. Siler, West Manchester.
	West Alexandria..... February 2-3	Carmichael, Nicodemus.....	Chas. Zehring, W. Alexandria, R. R.....	W. G. Campbell, W. Alexandria, R.R.4.
	Campbelltown..... January 2-3	Wagner, Galehouse.....	Stanley Hart, Campbelltown.....	Morey Cooper, Campbelltown.
	Morning Sun..... December 8-9	Wagner, Hoddy.....	Harry L. Wright, College Corner.....	C. C. McCreary, Camden.
Putnam	Kalida..... February 11-12	Smith, Funk.....	J. J. Gerdeman, Ft. Jennings.....	A. G. Verhoff, Ottawa.
	Leipsic..... January 21-22	Martindale, Herrick.....	R. M. Kratz, Leipsic.....	C. T. Henry, Leipsic.
	Continental..... February 20-21	Baldwin, Nicodemus.....	C. E. Wight, Continental.....	Burrel Simmon, Continental.
	Columbus Grove..... February 13-14	Markley, Treasurer.....	W. B. Roberts, Columbus Grove.....	
	Ottoville..... February 9-10	Wagner, Houser (J. S.).....	Wm. Schlagbaum, Ottoville.....	E. G. Odenweller, Ottoville.

Richland	Shiloh..... January 5-6 Lucas..... February 6-7 Shelby..... December 22-23 Belville..... January 26-27 Plymouth..... January 23-24	Gordon, Thomas..... Wagner, Ballou..... Baldwin, Bugby..... Begg, Houser, J. S..... Housekeeper, Blackford.....	H. S. Marring, Shiloh..... P. G. Wigton, Perrysville..... Jas. Gundrum, Shelby..... W. H. Eathart, Lexington..... B. O. Stock, Shelby, R. R. 4.....	J. H. Patterson, Plymouth, R. R. Arthur Leiter, Lucas. Bert Kuhn, Shelby. Harry A. Palm, Lexington.
Rosa	Frankfort..... December 3-4 South Salem..... December 29-30 Adelphi..... January 7-8	Housekeeper, Hoddy..... Brigham, Robertson..... Hudson, Montgomery.....	Chas. P. Jamison, Rosabell..... T. A. Rogers, Lyndon, R. R. 3..... D. W. Wolf, Kingdon, R. R.....	Major Briggs, Frankfort. Geo. C. Parrett, Lyndon, R. R. E. E. Kitchen, Adelphi.
Sandusky	Gibsonburg..... January 16-17 Woodville..... January 28-29 Lindsey..... January 7-8 Bellevue..... February 16-17	Herrick, Hummon..... Wagner, Hayden..... Miller, Knisely..... Begg, Goodwin.....	Chas. D. Kenan, Gibsonburg..... Geo. C. Baker, Woodville..... Earl Overmyer, Lindsey..... W. E. Klecker, Bellevue.....	P. C. Hornung, Gibsonburg. C. F. Nuhfer, Woodville. Harold Gahn, Lindsey. J. P. Vickery, Bellevue.
Scioto	Haverhill..... December 8-9 Scioto..... December 17-18 Lucasville..... December 29-30 Mt. Joy..... December 5-6 Empire Grange Hall..... January 7-8	Hayne, Housekeeper..... Gordon, Kibler..... Copeland, Hummon..... Housekeeper, Hoddy..... Brigham, Hoddy.....	J. A. Folsom, Franklin Furnace..... L. A. Coriell, Sciotoville, R. R..... Chas. Zaylor, Lucasville, R. R..... W. A. McGeorge, Mt. Joy..... W. J. Shannon, Franklin Furnace.....	John Crickenbarger, Haverhill. S. E. Samson, Scioto. John S. Alley, Lucasville. Albert S. Bonner, Mt. Joy. P. W. Schneider, Franklin Furnace.
Seneca	Greenspring..... February 23-24 Republic..... January 28-29 Postoria..... February 18-19 Tiffin..... January 16-17 Bettsville..... February 13-14	Buchanan, Scott..... Brigham, Dobbins..... Begg, Goodwin..... Wagner, Crumley..... Buchanan, Thomas.....	E. E. Parker, Greenspring..... John W. Cook, Republic..... Eph. Rinebold, Postoria..... G. W. Pature, Maple Grove.....	Mrs. Bert Huss, Fremont. Mrs. W. W. Amray, Republic. H. M. Heiserman, Postoria. J. H. Loose, Tiffin. G. A. Geyer, Bettsville.

County.	Place and Date.	Speakers.	President and Postoffice.	Secretary and Postoffice.
Shelby	Jackson Center..... February 11-12 Houston..... December 22-23 Pemberton..... December 26-27 Sidney..... December 29-30 Anna..... December 22-23	Markley, Tressler..... Blackford, High..... Matheny, Brenneman..... Wagner, Galehouse..... Begg, Galehouse.....	W. J. Smith, Jackson Center, R. R. 1..... T. J. Thompson, Piqua, R. R. 4..... Geo. M. Hill, Pemberton..... Earl D. Bristoe, Sidney, R. R..... Geo. W. Hense, Anna.....	Mrs. Ida Stout, Jackson Center. J. E. Souders, Dawson, R. R. 1. L. G. Shanley, Pemberton. John J. Huffman, Sidney, R. R. 4. Elmer Ludwig, Anna.
Stark	Battlesburg..... February 13-14 Robertsville..... January 19-20 Canal Fulton..... February 4-5 Harrisburg..... January 7-8 Wilmot..... January 9-10	Gordon, Hayne..... Buchanan, Dobbins..... Begg, Knisely..... Houskeeper, Burlingame..... Houskeeper, Burlingame.....	H. C. Hownstein, East Sparta..... C. N. Dewalt, Osnaburg, R. R. 11..... J. W. Michener, Canal Fulton..... Wm. H. Snyder, Louisville, R. R. 2..... O. C. Ricksecker, Wilmot.....	J. P. Hownstein, East Sparta. B. B. Bowman, Osnaburg, R. R. 1. E. L. Hoover, Louisville, R. R. C. E. Spidell, Wilmot.
Summit	Hudson..... February 6-7 Clinton..... January 2-3 Bath Center..... January 19-20 Manchester..... January 28-29 Copley..... January 12-13	Begg, Knisely..... Herrick, Nicodemus..... Smith, Harsh..... Gordon, Cook..... Houskeeper, Scott.....	P. W. Doyle, Hudson..... Harry D. Swigart, Clinton..... Frank Porter, Copley..... M. S. Grove, Clinton..... Clyde Yoe, Copley.....	P. A. Murphy, Hudson. Chas. Heimelrich, Barborton. I. S. Underwood, Everett. Stanley Hortong, Lake. Herman Frederick, Copley.
Trumbull	Burghill..... February 2-3 Mesopotamia..... January 26-27 Kinsman..... January 26-27 Brookfield..... December 15-16 Warren..... December 26-27	Gordon, Hoddy..... Smith, Nicodemus..... Buchanan, Montgomery..... Moore, Knisely..... Smith, Burkholder.....	T. L. Miller, Burghill..... Gale Gates, Mesopotamia..... Chas. Kinsman, Kinsman..... W. E. Kreidler, Warren.....	J. H. Case, Burghill. Glen Parker, Mesopotamia. Geo. E. King, Kinsman. Mrs. Marcella Peat, Sharon, Pa., R. 67. J. J. McLean, Warren.

Tuscarawas	Gnadenhuetten..... January 21-22 Winfield..... February 2-3 Ragersville..... December 17-18 Sandyville..... February 11-12 Peoli..... December 26-27	Markley, Bugby..... Begg, Knisely..... Hayne, Blackford..... Gordon, Hayne..... Houskeeper, Robertson.....	Adam Boltz, New Philadelphia R. R. 3..... W. H. Sweitzer, Canal Dover, R. R. 2..... H. H. Kate, Sugar Creek, R. R. 1..... H. S. Bartles, New Philadelphia..... S. P. Taylor, Newcomerstown.....	W. F. Hines, Gilmore. Chas. Penix, Canal Dover, R. R. 1. Walter F. Andrews, Sugar Creek, R. R. 1 T. E. Romig, Uhrichsville, R. R. F. C. Cappel, Newcomerstown, R. R. 1.
Union	Richwood..... January 16-17 York..... January 2-3 Watkins..... December 17-18 Marysville..... December 19-20 Broadway..... December 15-16	Gordon, Burlingame..... Baldwin, Burkholder..... Smith, Burkholder..... Begg, Elliott (C. W.)..... Wagner, Bowsher.....	Walter Hartman, Richwood..... A. T. Coons, Richwood..... Mark Longbrake, Marysville..... Max Chapman, Marysville..... C. M. Boord, Broadway.....	R. A. Lime, Richwood. D. H. Inskeep, Peoria. Minton Southard, Marysville, R. R.
Van Wert	Venedocia..... January 21-22 Weel..... February 18-19 Ohio City..... February 11-12 Wren..... January 19-20 Convoy..... January 9-10	Montgomery, Hammond..... Baldwin, Nicodemus..... Wagner, Houser (J. S.)..... Hudson, Matheny..... Herrick, Hummon.....	J. E. Reese, Venedocia..... Wm. McCracken, Middlepoint, R. R. 2..... J. F. Keller, Ohio City..... C. C. Jones, Wren..... Henry Wyandt, Convoy.....	C. H. Poster, Venedocia. E. B. Westenhaver, Grover Hill, R. R. 2 S. F. Downs, Rockford, R. R. 4. C. F. Gehres, Wren, R. R. 2. Otto Hertz, Convoy.
Vinton	Knox..... December 1-2 New Plymouth..... December 5-6 Wilkesville..... December 22-23 Allensville..... December 1-2	Markley, Scott..... Burlingame, Blackford..... Houskeeper, Robertson..... Houskeeper, Huddy.....	M. H. Throckmorton, Albany, R. R. 1..... W. W. Wimon, Orland..... A. E. Fitzpatrick, Radcliff..... A. G. Seitz, McArthur.....	J. W. Lively, Albany, R. R. 3. S. V. S. Finney, New Plymouth. F. A. Wells, Alice. Ernest Stevens, Allensville, P. O. Box 40
Warren	Lebanon..... January 7-8 Mason..... February 18-19 Butlerville..... February 11-12 Carlisle..... December 22-23 Harveysburg..... December 19-20	Baldwin, Dobbins..... Houskeeper, Hummon..... Hudson, Blackford..... Gordon, Kibler, True Houser..... Brigham, Green.....	Manley Jameson, Lebanon..... Frank R. Combs, Mason..... Wm. Chaney, Pleasant Plain..... A. T. Rettig, Carlisle..... B. Y. Collett, Wilmington.....	Sivan A. Lewis, Lebanon. Halleck C. Boyer, Mason. Grover Whitacre, Blanchester. R. B. Ewing, Carlisle. F. A. Hartsook, Waynesville.

County.	Place and Date.	Speakers.	President and Postoffice.	Secretary and Postoffice.
Washington	Lowell December 22-23	Buchanan, Elliott (W. P.)	J. S. Devo, Marietta	J. D. Snyder, Lowell.
	Bartlett January 2-3	Markley, Tressler	F. E. Goddard, Cutler, R. R. 1	Mrs. Roland Wagner, Cutler, R. R. 3.
	Watertown December 29-30	Brenneman, Hammond	J. A. Palmer, Watertown, R. R. 3	L. S. Bingham, Watertown.
	Whipple January 7-8	Nicodemus, Spencer	John H. Moore, Warner	Clement Twiggs, Whipple.
	West Salem December 31-January 1	Herrick, Nicodemus	Ivory W. Landis, West Salem, R. R.	Ray D. Whitmore, West Salem, R. R.
Wayne	Smithville January 21-22	Spencer, Thomas	S. A. Conrad, Sterling, R. R. 1	Mrs. E. Shisler, Smithville.
	Congress December 3-4	Moore, High	A. J. Reese, West Salem	Herb Eichler, West Salem.
	Blackeyville January 10-17	Smith, Harsh	E. A. Barden, Shreve, R. R. 3	M. C. Ebright, Shreve.
	Orrville January 23-24	Gordon, Bowsher	I. W. Berry, Marshallville	Mrs. E. E. Holser, Orrville.
	West Unity February 27-28	Begg, Brenneman	F. M. Money, West Unity	H. C. Miller, West Unity.
Williams	Kunkle February 18-19	Smith, Hoddy	Geo. Brown, Pioneer	Carl Greek, Kunkle.
	Edon December 17-18	Baldwin, Harsh	E. E. DeWire, Edon	S. D. Kiser, Edon.
	Stryker February 13-14	Scott, Harsh	C. H. Clark, Stryker	S. G. Doughton, Stryker.
	Edgerton January 28-29	Martindale, Goodwin	Arthur Richards, Edgerton	E. E. Casebeers, Edgerton.
	North Baltimore February 20-21	Begg, Goodwin	C. G. Nigh, N. Baltimore	Mrs. V. S. Peasel, Bloomdale, R. R. 1.
Wood	Custar January 5-6	Herrick, Hummer	A. L. Filere, Custar	L. M. Nesmith, Custar.
	Bloomdale January 12-13	Wagner, Crumley	J. H. Simon, Bloomdale	Harley E. Dennis, Bloomdale.
	Pemberville February 13-14	Baldwin, Copeland	P. H. Bruning, Pemberville	Geo. H. Speck, Pemberville.
	Grand Rapids January 30-31	Wagner, Hayden		C. E. Huffman, Grand Rapids.
	Nevada February 6-7	Markley, Tuttle	M. E. Palmer, Nevada	C. A. Songer, Nevada.
Wyandot	Sycamore January 30-31	Houskeeper, Hoddy	J. D. Curtis, Sycamore	Wade Curtis, Sycamore.
	Wharton January 21-22	Begg, Crumley	C. C. Weber, Wharton	Dale Motter, Wharton.
	Upper Sandusky January 9-10	Gordon, Thomas	L. A. Althouse, Upper Sandusky	Paul Smith, Upper Sandusky.

List of Speakers and Their Assignments

TOWN, COUNTY AND DATE.

F. L. Allen, Kinsman, Ohio.

Town.	County.	Date.	
Bellaire.....	Belmont.....	December	22-23
Brownsville.....	Licking.....	December	26-27

S. J. Baldwin, Talmadge, Ohio.

Town.	County.	Date.	
West Mansfield.....	Logan.....	December	8-9
Sunbury.....	Delaware.....	December	10-11
Richfield.....	Lucas.....	December	12-13
Archbold.....	Fulton.....	December	15-16
Edon.....	Williams.....	December	17-18
Brighton.....	Lorain.....	December	19-20
Shelby.....	Richland.....	December	22-23
Morral.....	Marion.....	December	26-27
Democracy.....	Knox.....	December	29-30
Marengo.....	Morrow.....	Dec. 31-Jan.	1
York.....	Union.....	January	2-3
Centerville.....	Montgomery.....	January	5-6
Lebanon.....	Warren.....	January	7-8
Miami.....	Hamilton.....	January	9-10
Blissfield.....	Coshocton.....	January	16-17
Van Buren.....	Hancock.....	February	9-10
Curtice.....	Ottawa.....	February	11-12
Pemberville.....	Wood.....	February	13-14
Hamler.....	Henry.....	February	16-17
Wetsel.....	Van Wert.....	February	18-19
Belle Center.....	Logan.....	February	20-21

F. H. Ballou, Wooster, Ohio.

Town.	County.	Date.	
Walhonding.....	Coshocton.....	February	2-3
Dierden.....	Muskingum.....	February	4-5
Lucas.....	Richland.....	February	6-7
Bedford.....	Cuyahoga.....	February	9-10
Chardon.....	Geauga.....	February	11-12
North Fairfield.....	Huron.....	February	13-14

John Begg, Columbus Grove, Ohio.

Town.	County.	Date.	
Camp.....	Pike.....	December	1-2
Valley Grange Hall.....	Jackson.....	December	3-4
Vinton.....	Gallia.....	December	5-6
Burlingham.....	Meigs.....	December	8-9
Chester.....	Meigs.....	December	10-11
Amesville.....	Athens.....	December	12-13
Unity.....	Perry.....	December	15-16
New Salem.....	Fairfield.....	December	17-18
Marysville.....	Union.....	December	19-20
Anna.....	Shelby.....	December	22-23
Kingscreek.....	Champaign.....	December	26-27
Magraw.....	Champaign.....	December	29-30
Cedarville.....	Greene.....	Dec. 31-Jan.	1
Port William.....	Clinton.....	January	2-3
McComb.....	Hancock.....	January	5-6
Deshler.....	Henry.....	January	7-8
Haviland.....	Paulding.....	January	9-10
Oxford.....	Butler.....	January	12-13
New Lebanon.....	Montgomery.....	January	16-17
Ada.....	Hardin.....	January	19-20
Wharton.....	Wyandot.....	January	21-22
Crestline.....	Crawford.....	January	23-24
Bellville.....	Richland.....	January	26-27
Glenmont.....	Holmes.....	January	28-29

John Begg—Concluded.

Town.	County.	Date.	
Perry Grange Hall.....	Coshocton	January	30-31
Winfield.....	Tuscarawas	February	2-3
Canal Fulton.....	Stark	February	4-5
Hudson.....	Summit	February	6-7
Bedford.....	Cuyahoga	February	9-10
Chardon.....	Geauga	February	11-12
North Fairfield.....	Huron	February	13-14
Bellevue.....	Sandusky	February	16-17
Fostoria.....	Seneca	February	18-19
North Baltimore.....	Wood	February	20-21
Waterville.....	Lucas	February	23-24
Roundhead.....	Hardin	February	25-26
West Unity.....	Williams	February	27-28

Frank Blackford, Eldorado, Ohio.

Town.	County.	Date.	
Strobel.....	Lawrence	December	1-2
Fairfield Church (Green Twp.).....	Gallia	December	3-4
New Plymouth.....	Vinton	December	5-6
Mountville.....	Morgan	December	8-9
Athens.....	Athens	December	10-11
Keiths.....	Noble	December	12-13
Tiverton.....	Coshocton	December	15-16
Ragersville.....	Tuscarawas	December	17-18
Antrim.....	Guernsey	December	19-20
Houston.....	Shelby	December	22-23
Bradford.....	Miami	December	26-27
Burton.....	Geauga	December	29-30
Rock Creek.....	Ashtabula	Dec. 31-Jan.	1
Geneva.....	Ashtabula	January	2-3
Glenford.....	Perry	January	5-6
Kinderhook.....	Pickaway	January	7-8
Cynthiana.....	Pike	January	9-10
West Union.....	Adams	January	12-13
Bethlehem Grange Hall.....	Coshocton	January	16-17
Grafton.....	Lorain	January	19-20
Olena.....	Huron	January	21-22
Plymouth.....	Richland	January	23-24
Lafayette.....	Allen	January	26-27
Forest.....	Hardin	January	28-29
Cridersville.....	Auglaize	January	30-31
Genoa.....	Ottawa	February	2-3
Fayette.....	Fulton	February	4-5
Liberty Center.....	Henry	February	6-7
New Burlington.....	Greene	February	9-10
Butlerville.....	Warren	February	11-12
Stockdale.....	Pike	February	13-14
Peachblow.....	Delaware	February	16-17
Waldo.....	Marion	February	18-19
Belle Center.....	Logan	February	20-21

H. D. Bowsher, Hume, Ohio.

Town.	County.	Date.	
Broadway.....	Union	December	15-16
Amanda.....	Fairfield	December	17-18
Logan.....	Hocking	December	19-20
Westfield.....	Morrow	January	19-20
Loudonville.....	Ashland	January	21-22
Orrville.....	Wayne	January	23-24

E. A. Brenneman, Camp Chase, Ohio.

Town.	County.	Date.	
Beardshear Church..... (2 miles north of Dayton.)	Montgomery	December	8-9
West Manchester.....	Preble	December	10-11
Okeana.....	Butler	December	12-13
Bloomingsburg.....	Rayette	December	22-23
Pemberton.....	Shelby	December	26-27
Watertown.....	Washington	December	29-30
Reinersville.....	Morgan	Dec. 31-Jan.	1
Rix Mills.....	Muskingum	January	2-3
Kipton.....	Lorain	January	5-6
Columbia.....	Lorain	January	7-8
Sharon Center.....	Medina	January	9-10
Jackson.....	Jackson	January	12-13
Carroll.....	Fairfield	January	16-17
Nova.....	Ashland	January	19-20

E. A. Brenneman—Concluded.

Town.	County.	Date.	
Strongsville.....	Cuyahoga.....	January	21-22
Mayfield.....	Cuyahoga.....	January	23-24
Waterville.....	Lucas.....	February	23-24
Roundhead.....	Hardin.....	February	25-26
West Unity.....	Williams.....	February	27-28

J. S. Brigham, Bowling Green, Ohio.

Town.	County.	Date.	
Selma.....	Clark.....	December	15-18
Bellbrook.....	Greene.....	December	17-18
Harveysburg.....	Warren.....	December	19-20
Bremen.....	Fairfield.....	December	22-23
Fox.....	Pickaway.....	December	26-27
South Salem.....	Ross.....	December	29-30
Sinking Springs.....	Highland.....	Dec. 31-Jan.	1
Sardinia.....	Brown.....	January	2-3
Wamsley.....	Adams.....	January	5-6
Empire Grange Hall.....	Scioto.....	January	7-8
Laurelville.....	Hocking.....	January	9-10
Jackson.....	Jackson.....	January	12-13
Carroll.....	Fairfield.....	January	16-17
Alexandria.....	Licking.....	January	19-20
Iberia.....	Morrow.....	January	21-22
Dunkirk.....	Hardin.....	January	23-24
Mt. Cory.....	Hancock.....	January	26-27
Republic.....	Seneca.....	January	28-29
Wakeman.....	Huron.....	January	30-31
Genoa.....	Ottawa.....	February	2-3
Payette.....	Fulton.....	February	4-5
Liberty Center.....	Henry.....	February	6-7
Defiance.....	Defiance.....	February	9-10
Uniopolis.....	Auglaize.....	February	11-12
Chattanooga.....	Mercer.....	February	13-14
Woodstock.....	Champaign.....	February	16-17
Spring Valley.....	Greene.....	February	18-19
New Vienna.....	Clinton.....	February	20-21
Darbyville.....	Pickaway.....	February	23-24
Pleasant Corners.....	Franklin.....	February	25-26
Ashley.....	Delaware.....	February	27-28

J. L. Buchanan, Sherodsville, Ohio.

Town.	County.	Date.	
Jewett.....	Harrison.....	December	8-9
Smithfield.....	Jefferson.....	December	10-11
Chestnut Level.....	Belmont.....	December	12-13
Clarrington.....	Monroe.....	December	15-16
Summerfield.....	Noble.....	December	17-18
Renrock.....	Noble.....	December	19-20
Lowell.....	Washington.....	December	22-23
Pleasant Valley.....	Morgan.....	December	26-27
Albany.....	Athens.....	December	29-30
Racine.....	Meigs.....	Dec. 31-Jan.	1
Walnut M. E. Church.....	Gallia.....	January	2-3
Pomaria Church (near Proctorville).....	Lawrence.....	January	5-6
Leo.....	Jackson.....	January	7-8
Piketon.....	Pike.....	January	9-10
West Union.....	Adams.....	January	12-31
Bethlehem Grange (Randall Sta.).....	Coshocton.....	January	16-17
Robertsville.....	Stark.....	January	19-20
Columbiana.....	Columbiana.....	January	21-22
Berlin Center.....	Mahoning.....	January	23-24
Kinsman.....	Trumbull.....	January	26-27
Lindenville.....	Ashtabula.....	January	28-29
Freedom.....	Portage.....	January	30-31
Mount Hope.....	Holmes.....	February	2-3
Fredericktown.....	Knox.....	February	4-5
Delaware.....	Delaware.....	February	6-7
Caledonia.....	Marion.....	February	9-10
Tiro.....	Crawford.....	February	11-12
Bettsville.....	Seneca.....	February	13-14
Milan.....	Erie.....	February	16-17
Port Clinton.....	Ottawa.....	February	18-19
Monclova.....	Lucas.....	February	20-21
Greenspring.....	Seneca.....	February	23-24
Delta.....	Fulton.....	February	25-26
Killbuck.....	Holmes.....	February	27-28

M. O. Bugby, Wooster, Ohio.

Town.	County.	Date.	
West Mansfield.....	Logan.....	December	8-9
Sunbury.....	Delaware.....	December	10-11
Richfield.....	Lucas.....	December	12-13
Shelby.....	Richland.....	December	22-23
Morral.....	Marion.....	December	26-27
Richmond.....	Jefferson.....	January	19-20
Gnadenhutten.....	Tuscarawas.....	January	21-22
Berlin.....	Holmes.....	January	23-24

H. Burkholder, Clyde, Ohio.

Town.	County.	Date.	
Jeromesville.....	Ashland.....	December	15-16
Watkins.....	Union.....	December	17-18
Thompson.....	Geauga.....	December	19-20
Garrettsville.....	Portage.....	December	22-23
Warren.....	Trumbull.....	December	26-27
Democracy.....	Knox.....	December	29-30
Marengo.....	Morrow.....	Dec. 31-Jan.	1
York.....	Union.....	January	2-3
Westboro.....	Clinton.....	January	5-6
Bethel.....	Clermont.....	January	7-8
Milford.....	Clermont.....	January	9-10
Blissfield.....	Coshocton.....	January	16-17

S. W. Burlingame, Caldwell, Ohio.

Town.	County.	Date.	
Strobel.....	Lawrence.....	December	1-2
Fairfield Church (Green Twp.).....	Gallia.....	December	3-4
New Plymouth.....	Vinton.....	December	5-6
Cassville.....	Harrison.....	December	22-23
Somerton.....	Belmont.....	December	26-27
Moons.....	Fayette.....	December	29-30
Manchester.....	Adams.....	Dec. 31-Jan.	1
Newtown.....	Hamilton.....	January	2-3
Carrollton.....	Carroll.....	January	5-6
Harrisburg.....	Stark.....	January	7-8
Wilnot.....	Stark.....	January	9-10
Kenton.....	Hardin.....	January	12-13
Richwood.....	Union.....	January	16-17

B. A. Carmichael, Wooster, Ohio.

Town.	County.	Date.	
Magnolia.....	Carroll.....	January	5-6
Eaton.....	Preble.....	January	9-10
West Alexandria.....	Preble.....	February	2-3
Beaverdam.....	Allen.....	February	4-5
Buckland.....	Auglaize.....	February	6-7

George N. Coffey, Wooster, Ohio.

Town.	County.	Date.	
Magrew.....	Champaign.....	December	29-30
Cedarville.....	Greene.....	Dec. 31-Jan.	1
Port William.....	Clinton.....	January	2-3
Germantown.....	Montgomery.....	January	5-6
Quincy.....	Logan.....	January	7-8
Cassella.....	Mercer.....	January	9-10

W. M. Cook, Xenia, Ohio.

Town.	County.	Date.	
Kimbolton.....	Guernsey.....	January	12-13
Grove Church (Near Gambier).....	Knox.....	January	16-17
Chatham.....	Medina.....	January	26-27
Manchester.....	Summit.....	January	28-29
Williamsfield.....	Ashtabula.....	January	30-31
New Madison.....	Darke.....	February	16-17
Casstown.....	Miami.....	February	18-19
Mt. Sterling.....	Madison.....	February	20-21

W. F. Copeland, Athens, Ohio.

Town.	County.	Date.	
Lucasville.....	Scioto.....	December	29-30
Lynchburg.....	Highland.....	Dec. 31-Jan.	1
Peebles.....	Adams.....	January	2-3
West Jefferson.....	Madison.....	January	12-13
West Point.....	Morrow.....	January	16-17
Van Buren.....	Hancock.....	February	9-10
Curtice.....	Ottawa.....	February	11-12
Pemberville.....	Wood.....	February	13-14

J. J. Crumley, Wooster, Ohio.

Town.	County.	Date.	
Bloomdale.....	Wood.....	January	12-13
Tiffin.....	Seneca.....	January	16-17
Ada.....	Hardin.....	January	19-20
Wharton.....	Wyandot.....	January	21-22
Crestline.....	Crawford.....	January	23-24

O. A. Dobbins, Cedarville, Ohio.

Town.	County.	Date.	
Adamsville.....	Muskingum.....	December	29-30
Vanatta.....	Licking.....	Dec. 31-Jan.	1
Levering.....	Knox.....	January	2-3
Centerville.....	Montgomery.....	January	5-6
Lebanon.....	Warren.....	January	7-8
Miami.....	Hamilton.....	January	9-10
Robertsville.....	Stark.....	January	19-20
Columbiana.....	Columbiana.....	January	21-22
Berlin Center.....	Mahoning.....	January	23-24
Mt. Cory.....	Hancock.....	January	26-27
Republic.....	Seneca.....	January	28-29
Wakeman.....	Huron.....	January	30-31

D. E. Dunham, Lebanon, Ohio.

Town.	County.	Date.	
Bloomingsburg.....	Fayette.....	December	22-23
Moultrie.....	Columbiana.....	January	26-27
Brecksville.....	Cuyahoga.....	January	28-29
Sebring.....	Mahoning.....	January	30-31
North Hampton.....	Clark.....	February	9-10
Milan.....	Erie.....	February	16-17
Port Clinton.....	Ottawa.....	February	18-19
Monclova.....	Lucas.....	February	20-21

C. W. Elliott, Mt. Healthy, Ohio.

Town.	County.	Date.	
Seaman.....	Adams.....	December	1-2
Fayetteville.....	Brown.....	December	3-4
Williamsburg.....	Clermont.....	December	5-6
Jewett.....	Harrison.....	December	8-9
Smithfield.....	Jefferson.....	December	10-11
Chestnut Level.....	Belmont.....	December	12-13
Unity.....	Perry.....	December	15-16
New Salem.....	Fairfield.....	December	17-18
Marysville.....	Union.....	December	19-20

W. P. Elliott, Athens, Ohio.

Town.	County.	Date.	
Camp.....	Pike.....	December	1-2
Valley Grange Hall.....	Jackson.....	December	3-4
Vinton.....	Gallia.....	December	5-6
Blanchester.....	Clinton.....	December	8-9
Sugartree Ridge.....	Highland.....	December	10-11
Latham.....	Pike.....	December	12-13
Batesville.....	Noble.....	December	15-16
Pleasant City.....	Guernsey.....	December	17-18
Beallsville.....	Monroe.....	December	19-20
Lowell.....	Washington.....	December	22-23
Pleasant Valley.....	Morgan.....	December	26-27

C. P. Funk, Wooster, Ohio.

Town.	County.	Date.	
Moons.....	Payette.....	December	29-30
Manchester.....	Adams.....	Dec. 31-Jan.	1
Newtown.....	Hamilton.....	January	2-3
Aurora.....	Portage.....	February	2-3
Chesterland.....	Ceauga.....	February	4-5
Medina.....	Medina.....	February	6-7
Delphos.....	Allen.....	February	9-10
Kalida.....	Putnam.....	February	11-12
Oakwood.....	Paulding.....	February	13-14

D. W. Galehouse, Wooster, Ohio.

Town.	County.	Date.	
Anna.....	Shelby.....	December	22-23
Kingscreek.....	Champaign.....	December	36-27
Sidney.....	Shelby.....	December	29-30
Ansonia.....	Darke.....	Dec. 31-Jan.	1
Campbellstown.....	Preble.....	January	2-3
Winfield.....	Tuscarawas.....	February	2-3

W. H. Goodwin, Wooster, Ohio.

Town.	County.	Date.	
Elmore.....	Ottawa.....	January	26-27
Edgerton.....	Williams.....	January	28-29
Bellevue.....	Sandusky.....	February	16-17
Postoria.....	Seneca.....	February	18-19
North Baltimore.....	Wood.....	February	20-21

J. F. Gordon, 1897 North Fourth St., Columbus, Ohio.

Town.	County.	Date.	
Seaman.....	Adams.....	December	1-2
Payetteville.....	Brown.....	December	3-4
Williamsburg.....	Clermont.....	December	5-6
Blanchester.....	Clinton.....	December	8-9
Sugartree Ridge.....	Highland.....	December	10-11
Latham.....	Pike.....	December	12-13
Cove.....	Jackson.....	December	15-16
Scioto.....	Scioto.....	December	17-18
Hanging Rock.....	Lawrence.....	December	19-20
Carlisle.....	Warren.....	December	22-23
Portersville.....	Perry.....	December	26-27
Adamsville.....	Muskingum.....	December	29-30
Vanatta.....	Licking.....	Dec. 31-Jan.	1
Levering.....	Knox.....	January	2-3
Shiloh.....	Richland.....	January	5-6
New Washington.....	Crawford.....	January	7-8
Upper Sandusky.....	Wyandot.....	January	9-10
Kenton.....	Hardin.....	January	12-13
Richwood.....	Un on.....	January	16-17
Westfield.....	Morrow.....	January	19-20
Loudonville.....	Ashland.....	January	21-22
Orrville.....	Wayne.....	January	23-24
Chatham.....	Medina.....	January	26-27
Manchester.....	Summit.....	January	28-29
Williamsfield.....	Ashtabula.....	January	30-31
Burghill.....	Trumbull.....	February	2-3
Greenford.....	Mahoning.....	February	4-5
Damascus.....	Columbiana.....	February	6-7
Sherodsville.....	Carroll.....	February	9-10
Sandyville.....	Tuscarawas.....	February	11-12
Battlesburg.....	Stark.....	February	13-14
Peachblow.....	Delaware.....	February	16-17
Waldo.....	Marion.....	February	18-19
Continental.....	Putnam.....	February	20-21

H. A. Gossard, Wooster, Ohio.

Town.	County.	Date.	
Oxford.....	Butler.....	January	12-13
New Lebanon.....	Montgomery.....	January	16-17
New Albany.....	Franklin.....	February	23-24
Thornville.....	Perry.....	February	25-26
Edison.....	Morrow.....	February	27-28

C. F. Green, Pataskala, Ohio.

Town.	County.	Date.	
Selma.....	Clark.....	December	15-16
Bellbrook.....	Greene.....	December	17-18
Harveysburg.....	Warren.....	December	19-20
Bremen.....	Fairfield.....	December	22-23
Fox.....	Pickaway.....	December	26-27
Albany.....	Athens.....	December	29-30
Racine.....	Meigs.....	Dec. 31-Jan.	1
Walnut M. E. Church.....	Gallia.....	January	2-3
Pomaria Church (near Proctorville).....	Lawrence.....	January	5-6
Leo.....	Jackson.....	January	7-8
Pikeeton.....	Pike.....	January	9-10

J. W. Hammond, Wooster, Ohio.

Town.	County.	Date.	
Watertown.....	Washington.....	December	29-30
Reinersville.....	Morgan.....	Dec. 31-Jan.	1
Rix Mills.....	Muskum.....	January	2-3
Glenford.....	Perry.....	January	5-6
Kinderhook.....	Pickaway.....	January	7-8
Cynthiana.....	Pike.....	January	9-10
Sharon Church.....	Henry.....	January	19-20
Venedoia.....	Van Wert.....	January	21-22
Lightsville.....	Darke.....	January	23-24

D. D. Harsh, Minerva, Ohio.

Town.	County.	Date.	
Archbold.....	Fulton.....	December	15-16
Edon.....	Williams.....	December	17-18
Brighton.....	Lorain.....	December	19-20
Trenton.....	Butler.....	December	29-30
Springdale.....	Hamilton.....	Dec. 31-Jan.	1
Harrison.....	Hamilton.....	January	2-3
Hicksville.....	Defiance.....	January	12-13
Blackeyville.....	Wayne.....	January	16-17
Bath Center.....	Summit.....	January	19-20
Edinburg.....	Portage.....	January	21-22
East Palestine.....	Columbiana.....	January	23-24
Plain City.....	Madison.....	January	26-27
Springhill.....	Champaign.....	January	28-29
Donnelsville.....	Clark.....	January	30-31
Metamora.....	Fulton.....	February	9-10
Wauseon.....	Fulton.....	February	11-12
Stryker.....	Williams.....	February	13-14
Darbyville.....	Pickaway.....	February	23-24
Pleasant Corners.....	Franklin.....	February	25-26
Ashley.....	Delaware.....	February	27-28

C. C. Hayden, Wooster, Ohio.

Town.	County.	Date.	
Brownhelm.....	Lorain.....	January	26-27
Woodville.....	Sandusky.....	January	28-29
Grand Rapids.....	Wood.....	January	30-31

R. A. Hayne, Adena, Ohio.

Town.	County.	Date.	
New Richmond.....	Clermont.....	December	1-2
Ripley.....	Brown.....	December	3-4
Hamersville.....	Brown.....	December	5-6
Haverhill.....	Scioto.....	December	8-9
Waterloo.....	Lawrence.....	December	10-11
South Point.....	Lawrence.....	December	12-13
Tiverton.....	Coshocton.....	December	15-16
Ragersville.....	Tuscarawas.....	December	17-18
Antrim.....	Guernsey.....	December	19-20
Bellaire.....	Belmont.....	December	22-23
Brownsville.....	Licking.....	December	26-27
Rushville.....	Fairfield.....	December	29-30
Groveport.....	Franklin.....	Dec. 31-Jan.	1
Ashville.....	Pickaway.....	January	2-3
Wamsley.....	Adams.....	January	5-6
Empire Grange Hall.....	Scioto.....	January	7-8
Laurelville.....	Hocking.....	January	9-10
Cheshire.....	Gallia.....	January	19-20
Dexter City.....	Noble.....	January	21-22
Mt. Hope.....	Holmes.....	February	2-3
Fredericktown.....	Knox.....	February	4-5
Delaware.....	Delaware.....	February	6-7
Caledonia.....	Marion.....	February	9-10
Sandyville.....	Tuscarawas.....	February	11-12
Battlesburg.....	Stark.....	February	13-14

Austin Herrick, Twinsburg, Ohio.

Town.	County.	Date.	
Grover Hill.....	Paulding.....	December	22-23
Ney.....	Defiance.....	December	26-27
Ashland.....	Ashland.....	December	29-30
West Salem.....	Wayne.....	Dec. 31-Jan.	1
Clinton.....	Summit.....	January	2-3
Custar.....	Wood.....	January	5-6
Antwerp.....	Paulding.....	January	7-8
Convoy.....	Van Wert.....	January	9-10
Berkey.....	Lucas.....	January	12-13
Gibsonburg.....	Sandusky.....	January	16-17
Payne.....	Paulding.....	January	19-20
Leipsic.....	Putnam.....	January	21-22
Jenera.....	Hancock.....	January	23-24

A. F. High, New Washington, Ohio.

Town.	County.	Date.	
Esto.....	Knox.....	December	1-2
Congress.....	Wayne.....	December	3-4
Greenwich.....	Huron.....	December	5-6
Houston.....	Shelby.....	December	22-23
Bradford.....	Miami.....	December	26-27

E. J. Hoddy, Linden Heights, Ohio.

Town.	County.	Date.	
Allensville.....	Vinton.....	December	1-2
Frankfort.....	Ross.....	December	3-4
Mt. Joy.....	Scioto.....	December	5-6
Morning Sun.....	Preble.....	December	8-9
Hamilton.....	Butler.....	December	10-11
Hilliard.....	Franklin.....	December	12-13
Canfield.....	Mahoning.....	December	15-16
West Point.....	Columbiana.....	December	17-18
Harlem Springs.....	Carroll.....	December	19-20
Rushville.....	Fairfield.....	December	29-30
Piedmont.....	Harrison.....	January	12-13
Adena.....	Jefferson.....	January	16-17
Savannah.....	Ashland.....	January	26-27
Bucyrus.....	Crawford.....	January	28-29
Sycamore.....	Wyandot.....	January	30-31
Burghill.....	Trumbull.....	February	2-3
Greenford.....	Mahoning.....	February	4-5
Damascus.....	Columbiana.....	February	6-7
Sherwood.....	Defiance.....	February	16-17
Kunkle.....	Williams.....	February	18-19
McClure.....	Henry.....	February	20-21

J. S. Houser, Wooster, Ohio.

Town.	County.	Date.	
Coolville.....	Athens.....	December	22-23
Pataskala.....	Licking.....	December	26-27
Bellville.....	Richland.....	January	26-27
Glenmont.....	Holmes.....	January	28-29
Perry Grange Hall.....	Coshocton.....	January	30-31
Ottoville.....	Putnam.....	February	9-10
Ohio City.....	Van Wert.....	February	11-12
Chattanooga.....	Mercer.....	February	13-14

True Houser, Germantown, Ohio.

Town.	County.	Date.	
Carlisle.....	Warren.....	December	22

G. C. Houskeeper, Bowling Green, Ohio.

Town.	County.	Date.	
Allensville.....	Vinton.....	December	1-2
Frankfort.....	Ross.....	December	3-4
Mt. Joy.....	Scioto.....	December	5-6
Haverhill.....	Scioto.....	December	8-9
Waterloo.....	Lawrence.....	December	10-11
South Point (Delta M. E. Church).....	Lawrence.....	December	12-13
Rutland.....	Meigs.....	December	15-16
Alfred.....	Meigs.....	December	17-18
Oak Hill.....	Jackson.....	December	19-20

G. C. Houskeeper—Concluded.

Town.	County.	Date.	
Wilkesville	Vinton	December	22-23
Peoli	Tuscarawas	December	26-27
Byesville	Guernsey	December	29-30
New Rumley	Harrison	Dec. 31-Jan.	1
Mt. Pleasant	Jefferson	January	2-3
Carrollton	Carroll	January	5-6
Harrisburg	Stark	January	7-8
Wilmot	Stark	January	9-10
Copley Center	Summit	January	12-13
Remson Corners	Medina	January	16-17
Grafton	Lorain	January	19-20
Olena	Huron	January	21-22
Plymouth	Richland	January	23-24
Savannah	Ashland	January	26-27
Bucyrus	Crawford	January	28-29
Sycamore	Wyandot	January	30-31
Beaverdam	Hancock	February	2-3
Buckland	Allen	February	4-5
West Liberty	Auglaize	February	6-7
Covington	Logan	February	9-10
Vandalia	Miami	February	11-12
Jamestown	Montgomery	February	13-14
Mason	Greene	February	16-17
Monroe	Warren	February	18-19
	Butler	February	20-21

J. F. Hudson, Ravenna, Ohio.

Town.	County.	Date.	
Olmstead Falls	Cuyahoga	December	22-23
Groveport	Franklin	Dec. 31-Jan.	1
Ashville	Pickaway	January	2-3
New Holland	Pickaway	January	5-6
Adelhi	Ross	January	7-8
Summerford	Madison	January	9-10
Alton	Franklin	January	12-13
Augusta	Marion	January	16-17
Wren	Van Wert	January	19-20
Wabash	Mercer	January	21-22
Neptune	Mercer	January	23-24
New Carlisle	Clark	January	26-27
Versailles	Darke	January	28-29
New Bremen	Auglaize	January	30-31
South Solon	Madison	February	2-3
Mingo	Champaign	February	4-5
New Burlington	Greene	February	9-10
Butlerville	Warren	February	11-12
Stockdale	Pike	February	13-14

J. A. Hummon, Leipsic, Ohio.

Town.	County.	Date.	
Grover Hill	Paulding	December	22-23
Ney	Defiance	December	26-27
Lucasville	Scioto	December	29-30
Lynchburg	Highland	Dec. 31-Jan.	1
Peebles	Adams	January	2-3
Custar	Wood	January	5-6
Antwerp	Paulding	January	7-8
Convoy	Van Wert	January	9-10
Berkey	Lucas	January	12-13
Gibsonburg	Sandusky	January	16-17
Perkins	Erie	January	19-20
Brunswick	Medina	January	21-22
Townsend	Huron	January	23-24
Plain City	Madison	January	26-27
Springhill	Champaign	January	28-29
Donnelsville	Clark	January	30-31
Vanlue	Hancock	February	2-3
Gettysburg	Darke	February	4-5
New Haven	Hamilton	February	6-7
Defiance	Defiance	February	9-10
Unionopolis	Auglaize	February	11-12
East Liberty	Logan	February	13-14
Jamestown	Greene	February	16-17
Mason	Warren	February	18-19
Monroe	Butler	February	20-21

T. B. Kibler, Rawson, Ohio.

Town.	County.	Date.	
Cove	Jackson	December	15-16
Scioto	Scioto	December	17-18
Hanging Rock	Lawrence	December	19-20
Carlisle	Warren	December	22-23
Portersville	Perry	December	26-27

P. C. Knisely, New Philadelphia, Ohio.

Town.	County.	Date.	
Brookfield	Trumbull	December	15-16
North Jackson	Mahoning	December	17-18
Perry	Lake	December	19-20
Magnolia	Carroll	January	5-6
Lindsey	Sandusky	January	7-8
Eaton	Preble	January	9-10
Elmore	Ottawa	January	26-27
Forest	Hardin	January	28-29
Canal Fulton	Stark	February	4-5
Hudson	Summit	February	6-7

Horatio Markley, Mt. Gilead, Ohio.

Town.	County.	Date.	
Knox	Vinton	December	1-2
Guysville	Athens	December	3-4
Neelyville	Morgan	December	5-6
Mountville	Morgan	December	8-9
Athens	Athens	December	10-11
Keltha	Noble	December	12-13
Batesville	Noble	December	15-16
Pleasant City	Guernsey	December	17-18
Beallsville	Monroe	December	19-20
Bloomingsdale	Jefferson	December	22-23
Montezuma	Mercer	December	26-27
Franklin Twp (Grange Hall)	Licking	December	29-30
Rehoboth	Perry	Dec. 31-Jan.	1
Bartlett	Washington	January	2-3
Woodfield	Monroe	January	5-6
Fairview	Guernsey	January	7-8
Otsego	Muskingum	January	9-10
Piedmont	Harrison	January	12-13
Adena	Jefferson	January	16-17
Richmond	Jefferson	January	19-20
Gnadenhutten	Tuscarawas	January	21-22
Berlin	Holmes	January	23-24
Moultrie	Columbiana	January	26-27
Brecksville	Cuyahoga	January	28-29
Sebring	Mahoning	January	30-31
Ostrander	Delaware	February	2-3
Marion	Marion	February	4-5
Nevada	Wyandot	February	6-7
Harrod	Allen	February	9-10
Jackson Center	Shelby	February	11-12
Columbus Grove	Putnam	February	13-14

E. C. Martindale, Wilkinson, Ind.

Town.	County.	Date.	
Beardshear Church (2 miles north of Dayton)	Montgomery	December	8-9
West Manchester	Preble	December	10-11
Okeana	Butler	December	12-13
Laurel	Clermont	December	15-16
Decatur	Brown	December	17-18
Rainsboro	Highland	December	19-20
Payne	Paulding	January	19-20
Leipsic	Putnam	January	21-22
Jenera	Hancock	January	23-24
Lafayette	Allen	January	26-27
Edgerton	Williams	January	28-29
Cridersville	Auglaize	January	30-31

W. A. Matheny, Athens, Ohio.

Town.	County.	Date.	
Olmstead Falls	Cuyahoga	December	22-23
Pemberton	Shelby	December	26-27
West Milton	Miami	December	29-30
Kingman	Clinton	Dec. 31-Jan.	1
Leesburg	Highland	January	2-3
Wren	Van Wert	January	19-20
Wabash	Mercer	January	21-22
Neptune	Mercer	January	23-24

H. P. Miller, Ravenna, Ohio.

Town.	County.	Date.	
Burton	Geauga	December	29-30
Rock Creek	Ashtabula	Dec. 31-Jan.	1
Geneva	Ashtabula	January	2-3
Lindsey	Sandusky	January	7-8

C. W. Montgomery, Newark, Ohio.

Town.	County.	Date.	
Clarrington.....	Monroe.....	December	15-16
Summerfield.....	Noble.....	December	17-18
Renrock.....	Noble.....	December	19-20
New Holland.....	Pickaway.....	January	5-6
Adelphi.....	Ross.....	January	7-8
Summerford.....	Madison.....	January	9-10
Alton.....	Franklin.....	January	12-13
Agosta.....	Marion.....	January	16-17
Sharon Church.....	Henry.....	January	19-20
Venelocia.....	Van Wert.....	January	21-22
Lightsville.....	Darke.....	January	23-24
Kinsman.....	Trumbull.....	January	26-27
Lindenville.....	Ashtabula.....	January	28-29
Freedom.....	Portage.....	January	30-31
South Solon.....	Madison.....	February	2-3
Mingo.....	Champaign.....	February	4-5
North Hampton.....	Clark.....	February	6-7

S. W. Moore, Gallipolis Ferry, W. Va.

Town.	County.	Date.	
Esto.....	Knox.....	December	1-2
Congress.....	Wayne.....	December	3-4
Greenwich.....	Huron.....	December	5-6
Colerain.....	Belmont.....	December	8-9
Centerville.....	Belmont.....	December	10-11
Bowerston.....	Harrison.....	December	12-13
Brookfield.....	Trumbull.....	December	15-16
North Jackson.....	Mahoning.....	December	17-18
Perry.....	Lake.....	December	19-20

J. W. Nicodemus, Van Wert, Ohio.

Town.	County.	Date.	
Colerain.....	Belmont.....	December	8-9
Centerville.....	Belmont.....	December	10-11
Bowerston.....	Harrison.....	December	12-13
Bloomfield.....	Muskingum.....	December	15-16
Petersburg.....	Carroll.....	December	17-18
Barnhart School House.....	Monroe.....	December	19-20
Bloomington.....	Jefferson.....	December	22-23
Montezuma.....	Mercer.....	December	26-27
Ashland.....	Ashland.....	December	29-30
West Salem.....	Wayne.....	Dec. 31-Jan.	1
Clinton.....	Summit.....	January	2-3
Sardis.....	Monroe.....	January	5-6
Whipple.....	Washington.....	January	7-8
Triadelphia.....	Morgan.....	January	9-10
West Jefferson.....	Madison.....	January	12-13
West Point.....	Morrow.....	January	16-17
Perkins.....	Erie.....	January	19-20
Brunswick.....	Medina.....	January	21-22
Townsend.....	Huron.....	January	23-24
Mesopotamia.....	Trumbull.....	January	26-27
Montville.....	Geauga.....	January	28-29
Pierpont.....	Ashtabula.....	January	30-31
West Alexandria.....	Preble.....	February	2-3
Gettysburg.....	Darke.....	February	4-5
New Haven.....	Hamilton.....	February	6-7
West Liberty.....	Logan.....	February	9-10
Covington.....	Miami.....	February	11-12
Vandalia.....	Montgomery.....	February	13-14
Hamler.....	Henry.....	February	16-17
Wetsel.....	Van Wert.....	February	18-19
Continental.....	Putnam.....	February	20-21

Ernest J. Riggs, Columbus, Ohio.

Town.	County.	Date.	
New Richmond.....	Clermont.....	December	1-2
Ripley.....	Brown.....	December	3-4
Hammersville.....	Brown.....	December	5-6
Burlingham.....	Meigs.....	December	8-9
Chester.....	Meigs.....	December	10-11
Amesville.....	Athens.....	December	12-13

R. R. Robertson, Norwalk, Ohio.

Town.	County.	Date.	
Rutland.....	Meigs	December	15-18
Alfred.....	Meigs	December	17-18
Oak Hill.....	Jackson	December	19-20
Wilkesville.....	Vinton	December	22-23
Peoli.....	Tuscarawas	December	26-27
South Salem.....	Ross	December	29-30
Sinking Springs.....	Highland	Dec. 31-Jan.	1
Sardinia.....	Brown	January	2-3
Woodsville.....	Monroe	January	5-6
Fairview.....	Guernsey	January	7-8
Otsego.....	Muskingum	January	9-10
Catawba.....	Clark	January	12-13
Remson Corners.....	Medina	January	16-17

George E. Scott, Mt. Pleasant, Ohio.

Town.	County.	Date.	
Knox.....	Vinton	December	1-2
Guysville.....	Athens	December	3-4
Neelysville.....	Morgan	December	5-6
Bloomfield.....	Muskingum	December	15-16
Petersburg.....	Carroll	December	17-18
Barnhart School House.....	Monroe	December	19-20
Kipton.....	Lorain	January	5-6
Columbia.....	Lorain	January	7-8
Sharon Center.....	Medina	January	9-10
Copley Center.....	Summit	January	12-13
Jeffersonville.....	Fayette	January	16-17
Alexandria.....	Licking	January	19-20
Iberia.....	Morrow	January	21-22
Dunkirk.....	Hardin	January	23-24
New Carlisle.....	Clark	January	26-27
Versailles.....	Darke	January	28-29
New Bremen.....	Auglaize	January	30-31
Berlin Heights.....	Erie	February	2-3
Castalia.....	Erie	February	4-5
Oak Harbor.....	Ottawa	February	6-7
Metamora.....	Fulton	February	9-10
Wauseon.....	Fulton	February	11-12
Stryker.....	Williams	February	13-14
Greenspring.....	Seneca	February	23-24
Delta.....	Fulton	February	25-26
Killbuck.....	Holmes	February	27-28

L. G. Spencer, Niles, Ohio.

Town.	County.	Date.	
Canfield.....	Mahoning	December	15-16
West Point.....	Columbiana	December	17-18
Harlem Springs.....	Carroll	December	19-20
Cassville.....	Harrison	December	22-23
Somerton.....	Belmont	December	26-27
Byesville.....	Guernsey	December	29-30
New Rumley.....	Harrison	Dec. 31-Jan.	1
Mt. Pleasant.....	Jefferson	January	2-3
Sardis.....	Monroe	January	5-6
Lower Salem.....	Washington	January	7-8
Triadelphia.....	Morgan	January	9-10
Kimbolton.....	Guernsey	January	12-13
Grove Church (near Gambier).....	Knox	January	16-17
Holmesville.....	Holmes	January	19-20
Smithville.....	Wayne	January	21-22
Kent.....	Portage	January	23-24

Bert Smith, Delaware, Ohio.

Town.	County.	Date.	
Jeromesville.....	Ashland	December	15-16
Watkins.....	Union	December	17-18
Thompson.....	Geauga	December	19-20
Garrettsville.....	Portage	December	22-23
Warren.....	Trumbull	December	26-27
Trenton.....	Butler	December	29-30
Springdale.....	Hamilton	Dec. 31-Jan.	1
Harrison.....	Hamilton	January	2-3
McComb.....	Hancock	January	5-6
Deshler.....	Henry	January	7-8
Haviland.....	Paulding	January	9-10
Hicksville.....	Defiance	January	12-13
Blackeyville.....	Wayne	January	16-17
Bath Center.....	Summit	January	19-20

Bert Smith—Concluded.

Town.	County.	Date.	
Edinburg.....	Portage.....	January	21-22
East Palestine.....	Columbiana.....	January	23-24
Mesopotamia.....	Trumbull.....	January	26-27
Montville.....	Geauga.....	January	28-29
Pierpont.....	Ashtabula.....	January	30-31
Aurora.....	Portage.....	February	2-3
Chesterland.....	Geauga.....	February	4-5
Medina.....	Medina.....	February	6-7
Delphos.....	Allen.....	February	9-10
Kalida.....	Putnam.....	February	11-12
Oakwood.....	Paulding.....	February	13-14
Sherwood.....	Defiance.....	February	16-17
Kunkle.....	Williams.....	February	18-19
McClure.....	Henry.....	February	20-21

M. C. Thomas, Mingo, Ohio.

Town.	County.	Date.	
Shiloh.....	Richland.....	January	5-6
New Washington.....	Crawford.....	January	7-8
Upper Sandusky.....	Wyandot.....	January	9-10
Holmesville.....	Holmes.....	January	19-20
Smithville.....	Wayne.....	January	21-22
Kent.....	Portage.....	January	23-24
Sherodsville.....	Carroll.....	February	9-10
Tiro.....	Crawford.....	February	11-12
Bettsville.....	Seneca.....	February	13-14

M. L. Tressler, Montpelier, Ohio.

Town.	County.	Date.	
Laurel.....	Clermont.....	December	15-16
Decatur.....	Brown.....	December	17-18
Rainsboro.....	Highland.....	December	19-20
Franklin Twp. (Grange Hall).....	Licking.....	December	29-30
Rehoboth.....	Perry.....	Dec. 31-Jan.	1
Bartlett.....	Washington.....	January	2-3
Westboro.....	Clinton.....	January	5-6
Bethel.....	Clermont.....	January	7-8
Milford.....	Clermont.....	January	9-10
Catawba.....	Clark.....	January	12-13
Jeffersonville.....	Fayette.....	January	16-17
Cheshire.....	Gallia.....	January	19-20
Dexter City.....	Noble.....	January	21-22
Berlin Heights.....	Erie.....	February	2-3
Castalia.....	Erie.....	February	4-5
Oak Harbor.....	Ottawa.....	February	6-7
Harrod.....	Allen.....	February	9-10
Jackson Center.....	Shelby.....	February	11-12
Columbus Grove.....	Putnam.....	February	13-14
Woodstock.....	Champaign.....	February	16-17
Spring Valley.....	Greene.....	February	18-19
New Vienna.....	Clinton.....	February	20-21

H. F. Tuttle, Wooster, Ohio.

Town.	County.	Date.	
West Milton.....	Miami.....	December	29-30
Kingman.....	Clinton.....	Dec. 31-Jan.	1
Leesburg.....	Highland.....	January	2-3
Ostrander.....	Delaware.....	February	2-3
Marion.....	Marion.....	February	4-5
Nevada.....	Wyandot.....	February	6-7

C. R. Wagner, Arlington, Ohio.

Town.	County.	Date.	
Morning Sun.....	Preble.....	December	8-9
Hamilton.....	Butler.....	December	10-11
Hillard.....	Franklin.....	December	12-13
Broadway.....	Union.....	December	15-16
Amanda.....	Fairfield.....	December	17-18
Logan.....	Hocking.....	December	19-20
Coolville.....	Athens.....	December	22-23
Pataskala.....	Licking.....	December	26-27
Sidney.....	Shelby.....	December	29-30
Ansonia.....	Darke.....	Dec. 31-Jan.	1
Campbellstown.....	Preble.....	January	2-3
Germantown.....	Montgomery.....	January	5-6
Quincy.....	Logan.....	January	7-8

C. R. Wagner—Concluded.

Town.	County.	Date.	
Cassella	Mercer	January	9-10
Bloomdale	Wood	January	12-13
Tiffin	Seneca	January	16-17
Nova	Ashland	January	19-20
Strongsville	Cuyahoga	January	21-22
Mayfield	Cuyahoga	January	23-24
Brownhelm	Lorain	January	26-27
Woodville	Sandusky	January	28-29
Grand Rapids	Wood	January	30-31
Walhonding	Coshocton	February	2-3
Dresden	Muskingum	February	4-5
Lucas	Richland	February	6-7
Ottoville	Putnam	February	9-10
Ohio City	Van Wert	February	11-12
East Liberty	Logan	February	13-14
New Madison	Darke	February	16-17
Casstown	Miami	February	18-19
Mt. Sterling	Madison	February	20-21
New Albany	Franklin	February	23-24
Thornville	Perry	February	25-26
Edison	Morrow	February	27-28

ASSIGNMENT OF LADY INSTRUCTORS

Mrs. Christine D. Laws, 1371 East 115th St., Cleveland, Ohio.

Town.	County.	Date.	
New Richmond	Clermont	December	2
Ripley	Brown	December	3
Payetteville	Brown	December	4
Hamersville	Brown	December	5
Williamsburg	Clermont	December	6
Morning Sun	Preble	December	8
Blanchester	Clinton	December	9
Hamilton	Butler	December	10
Sugartree Ridge	Highland	December	11
Okeana	Butler	December	12
Latham	Pike	December	13
Cove	Jackson	December	15
Rutland	Meigs	December	16
Alfred	Meigs	December	17
Summerfield	Noble	December	18
Beallsville	Monroe	December	19
Barnhart School House	Monroe	December	20
Burton	Geauga	December	29
Democracy	Knox	December	30
Groveport	Franklin	January	1
Port William	Clinton	January	2
Leesburg	Highland	January	3
Wamsley	Adams	January	5
Westboro	Clinton	January	6
Bethel	Clermont	January	7
Lebanon	Warren	January	8
Miami	Hamilton	January	9
Eaton	Preble	January	10
Oxford	Butler	January	12
West Jefferson	Madison	January	13
Richwood	Union	January	16
West Point	Morrow	January	17
Westfield	Morrow	January	19
Holmesville	Holmes	January	20
Smithville	Wayne	January	21
Brunswick	Medina	January	22
Kent	Portage	January	23
Mayfield	Cuyahoga	January	24
Brownhelm	Lorain	January	26
Elmore	Ottawa	January	27
Woodville	Sandusky	January	28
Republic	Seneca	January	29
Wakeman	Huron	January	30
Sycamore	Wyandot	January	31
South Solon	Madison	February	3
Dresden	Muskingum	February	4
West Alexandria	Montgomery	February	2

Miss Pearl Dorsey, Moundsville, West Virginia.

Town.	County.	Date.	
Jewett	Harrison	December	9
Centerville	Belmont	December	10
Smithfield	Jefferson	December	11
Chestnut Level	Belmont	December	12

Miss Pearl Dorsey—Concluded.

Town.	County.	Date.	
Bowerston	Harrison	December	13
Bloomfield	Muskingum	December	15
Batesville	Noble	December	16
Amanda	Fairfield	December	17
New Salem	Fairfield	December	18
Logan	Hocking	December	19
Oak Hill	Jackson	December	20
Byesville	Guernsey	December	29
Rushville	Fairfield	December	30
Lynchburg	Highland	December	31
Sinking Springs	Highland	January	1
Peebles	Adams	January	2
Sardinia	Brown	January	3
Woodsville	Monroe	January	5
Sardis	Monroe	January	6
Whipple	Washington	January	7
Fairview	Guernsey	January	8
Otsego	Muskingum	January	9
Triadelphia	Morgan	January	10
Catawba	Clark	January	13
Tiffin	Seneca	January	16
Blackleyville	Wayne	January	17
Ada	Hardin	January	19
Sharon Church	Henry	January	20
Wharton	Wyandot	January	21
Iberia	Morrow	January	22
Crestline	Crawford	January	23
Dunkirk	Hardin	January	24
Savannah	Ashland	January	26
Chatham	Medina	January	27
Manchester	Summit	January	28
Glenmont	Holmes	January	29
Perry Grange Hall	Coshocton	January	30
Williamsfield	Ashtabula	January	31
Aurora	Portage	February	2
Burghill	Trumbull	February	3
Chesterland	Geauga	February	4

Miss Inez Plotner, West Mansfield, Ohio.

Town.	County.	Date.	
Broadway	Union	December	15
Selma	Clark	December	16
Bellbrook	Greene	December	17
Watkins	Union	December	18
Marysville	Union	December	19
Harveysburg	Warren	December	20
Grover Hill	Paulding	December	23
Magrew	Champaign	December	29
West Milton	Miami	December	30
Ansonia	Darke	December	31
Cedarville	Greene	January	1
Ashville	Pickaway	January	2
Levering	Knox	January	3
Glenford	Perry	January	5
New Holland	Pickaway	January	6
Kinderhook	Pickaway	January	7
Adelphi	Ross	January	8
Piketon	Pike	January	9
Cynthiana	Pike	January	10
Jackson	Jackson	January	12
West Union	Adams	January	13
Grove Church (Gambier)	Knox	January	16
Blissfield	Coshocton	January	17
Wren	Van Wert	January	19
Payne	Paulding	January	20
Leipsic	Putnam	January	21
Wabash	Mercer	January	22
Neptune	Mercer	January	23
Versailles	Darke	January	24
New Carlisle	Clark	January	30
Vanlue	Hancock	February	2
Berlin Heights	Erie	February	3
Castalia	Erie	February	4
Fayette	Fulton	February	5
Liberty Center	Henry	February	6
Buckland	Auglaize	February	7
Peachblow	Delaware	February	16
New Madison	Darke	February	17
Cassstown	Miami	February	18
Wetsel	Van Wert	February	19
Belle Center	Logan	February	20
Mt. Sterling	Madison	February	21
Pleasant Corners	Franklin	February	25

Miss Inez Plotner—Concluded.

Town.	County.	Date.	
Thornville	Perry	February	26
Edison	Morrow	February	27
Ashley	Delaware	February	28

Mrs. Ida Durbin, Fredericktown, Ohio.

Town.	County.	Date.	
Allensville	Vinton	December	1
Knox	Vinton	December	2
Guysville	Athens	December	3
Valley Grange Hall	Jackson	December	4
Vinton	Gallia	December	5
Mt. Joy	Scioto	December	6
Haverhill	Scioto	December	8
Burlingham	Meigs	December	9
Chester	Meigs	December	10
Athens	Athens	December	11
South Point	Lawrence	December	12
Keiths	Noble	December	13
Unity	Perry	December	15
Clarington	Monroe	December	16
Pleasant City	Guernsey	December	17
West Point	Columbiana	December	18
Thompson	Geauga	December	19
Perry	Lake	December	20
Campbelltown	Preble	January	2
Magnolia	Carroll	January	5
Carrollton	Carroll	January	6
Harrisburg	Stark	January	7
Lindsey	Sandusky	January	8
Sharon Center	Medina	January	9
Wilnot	Stark	January	10
Kimbolton	Guernsey	January	12
Alton	Franklin	January	13
Agosta	Marion	January	16
Bethlehem Grange Hall	Coshocton	January	17
Richmond	Jefferson	January	19
Ostrander	Delaware	February	2
Mt. Hope	Holmes	February	3
Canal Fulton	Stark	February	4
Greenford	Mahoning	February	5
Damascus	Columbiana	February	6
Hudson	Summit	February	7
Harrod	Allen	February	9
Delphos	Allen	February	10
Uniopolis	Auglaize	February	11
Covington	Miami	February	12
Vandalia	Montgomery	February	13
East Liberty	Logan	February	14
Darbyville	Pickaway	February	23
New Albany	Franklin	February	24
Ashley	Delaware	February	27

Mrs. Laura R. Riedinger, Alliance, Ohio.

Town.	County.	Date.	
Jeromeville	Ashland	December	15
Tiverton	Coshocton	December	16
Ragersville	Tuscarawas	December	17
Petersburg	Carroll	December	18
Harlem Springs	Carroll	December	19
Antrim	Guernsey	December	20
Franklin Twp. Grange Hall	Licking	December	29
Adamsville	Muskingum	December	30
Vanatta	Licking	December	31
Marengo	Morrow	January	1
Rix Mills	Muskingum	January	2
Bartlett	Washington	January	3
Bath Center	Summit	January	19
Grafton	Lorain	January	20
Strongsville	Cuyahoga	January	21
Edinburg	Portage	January	22
East Palestine	Columbiana	January	23
Berlin Center	Mahoning	January	24
Mesopotamia	Trumbull	January	26
Kinsman	Trumbull	January	27
Montville	Geauga	January	28
Brecksville	Cuyahoga	January	29
Freedom	Portage	January	30
Sebring	Mahoning	January	31
Caledonia	Marion	February	9
Van Buren	Hancock	February	10
Kalida	Putnam	February	11

Mrs. Laura R. Riedinger—Concluded.

Town.	County.	Date.	
Ohio City.....	Van Wert.....	February.....	12
Oakwood.....	Paulding.....	February.....	13
Columbus Grove.....	Putnam.....	February.....	14
Woodstock.....	Champaign.....	February.....	16
Jamestown.....	Greene.....	February.....	17
Spring Valley.....	Greene.....	February.....	18
Mason.....	Warren.....	February.....	19
Monroe.....	Butler.....	February.....	20
New Vienna.....	Clinton.....	February.....	21
Greenspring.....	Seneca.....	February.....	23
Waterville.....	Lucas.....	February.....	24
Delta.....	Fulton.....	February.....	25

Dr. Mary Anderson, Clinton, Ohio.

Town.	County.	Date.	
Esto.....	Knox.....	December.....	2
Congress.....	Wayne.....	December.....	3
Greenwich.....	Huron.....	December.....	5
West Mansfield.....	Logan.....	December.....	8
Beardshear Church.....	Montgomery.....	December.....	9
West Manchester.....	Preble.....	December.....	10
Sunbury.....	Delaware.....	December.....	11
Hilliard.....	Franklin.....	December.....	12
Amesville.....	Athens.....	December.....	13
Canfield.....	Mahoning.....	December.....	15
Brookfield.....	Trumbull.....	December.....	16
North Jackson.....	Mahoning.....	December.....	17
Edon.....	Williams.....	December.....	18
Brighton.....	Lorain.....	December.....	20
Moons.....	Fayette.....	December.....	29
South Solon.....	Ross.....	December.....	30
Racine.....	Meigs.....	December.....	31
Reinersville.....	Morgan.....	January.....	1
Walnut M. E. Church.....	Gallia.....	January.....	2
York.....	Union.....	January.....	3
Deshler.....	Henry.....	January.....	7
Upper Sandusky.....	Wyandot.....	January.....	9
Summerford.....	Madison.....	January.....	10
Carroll.....	Fairfield.....	January.....	16
Jeffersonville.....	Fayette.....	January.....	17
Alexandria.....	Licking.....	January.....	19
Nova.....	Ashland.....	January.....	20
Loudonville.....	Ashland.....	January.....	21
Olena.....	Huron.....	January.....	22
Plymouth.....	Richland.....	January.....	23
Orrville.....	Wayne.....	January.....	24
Moultrie.....	Columbiana.....	January.....	26
Bellville.....	Richland.....	January.....	27
Bucyrus.....	Crawford.....	January.....	28
Forest.....	Hardin.....	January.....	29
Criersville.....	Auglaize.....	January.....	30
Donnellsville.....	Clark.....	January.....	31
Winfield.....	Tuscarawas.....	February.....	2
Walhonding.....	Coshocton.....	February.....	3
Fredericktown.....	Knox.....	February.....	4
Marion.....	Marion.....	February.....	5
Delaware.....	Delaware.....	February.....	6
Lucas.....	Richland.....	February.....	7
Milan.....	Erie.....	February.....	16
Bellevue.....	Sandusky.....	February.....	17
Port Clinton.....	Ottawa.....	February.....	18
Postoria.....	Seneca.....	February.....	19
North Baltimore.....	Wood.....	February.....	20
McClure.....	Henry.....	February.....	21

CALENDAR OF INSTITUTES

TO BE HELD IN OHIO FROM DECEMBER 1, 1913, TO FEBRUARY 28, 1914, WITH
DATES, PLACES, COUNTIES AND SPEAKERS.

Monday and Tuesday, December 1-2.

Town.	County.	Speakers.
Allenville.....	Vinton.....	Houskeeper, Hoddy, Durbin.
Camp.....	Pike.....	Begg, W. P. Elliott.
Esto.....	Knox.....	Moore, High, Anderson.
Knox.....	Vinton.....	Markley, Scott, Durbin.
Sugar Creek Church (Strobel).....	Lawrence.....	Burlingame, Blackford.
New Richmond.....	Clermont.....	Hayne, Riggs, Laws.
Seaman.....	Adams.....	Gordon, C. W. Elliott.

Wednesday and Thursday, December 3-4.

Town.	County.	Speakers.
Congress.....	Wayne.....	Moore, High, Anderson.
Fairfield Church (Green Twp.).....	Gallia.....	Blackford, Burlingame.
Payetteville.....	Brown.....	Gordon, C. W. Elliott, Laws.
Frankfort.....	Ross.....	Houskeeper, Hoddy.
Guysville.....	Athens.....	Markley, Scott, Durbin.
Ripley.....	Brown.....	Hayne, Riggs, Laws.
Valley Grange Hall.....	Jackson.....	Begg, W. P. Elliott, Durbin.

Friday and Saturday, December 5-6.

Town.	County.	Speakers.
Greenwich.....	Huron.....	Moore, High, Anderson.
Hamersville.....	Brown.....	Hayne, Riggs, Laws.
Mt. Joy.....	Scioto.....	Houskeeper, Hoddy, Durbin.
Noeslyville.....	Morgan.....	Markley, Scott.
New Plymouth.....	Vinton.....	Burlingame, Blackford.
Vinton.....	Gallia.....	Begg, W. P. Elliott, Durbin.
Williamsburg.....	Clermont.....	Gordon, C. W. Elliott, Laws.

Monday and Tuesday, December 8-9.

Town.	County.	Speakers.
Beardshear Church.....	Montgomery.....	Martindale, Brennenman, Anderson.
Blanchester.....	Clinton.....	Gordon, W. P. Elliott, Laws.
Burlingham.....	Meigs.....	Begg, Riggs, Durbin.
Colerain.....	Belmont.....	Nicodemus, Moore.
Haverhill.....	Scioto.....	Hayne, Houskeeper, Durbin.
Jewett.....	Harrison.....	Buchanan, C. W. Elliott, Dorsey.
Mountville.....	Morgan.....	Markley, Blackford.
Morning Sun.....	Preble.....	Wagner, Hoddy, Laws.
West Mansfield.....	Logan.....	Baldwin, Bugby, Anderson.

Wednesday, and Thursday, December 10-11.

Town.	County.	Speakers.
Athens.....	Athens.....	Markley, Blackford, Durbin.
Centerville.....	Belmont.....	Nicodemus, Moore, Dorsey.
Chester.....	Meigs.....	Begg, Riggs, Durbin.
Hamilton.....	Butler.....	Wagner, Hoddy, Laws.
Smithfield.....	Jefferson.....	Buchanan, C. W. Elliott, Dorsey.
Sugar Tree Ridge.....	Highland.....	Gordon, W. P. Elliott, Laws.
Sunbury.....	Delaware.....	Baldwin, Bugby, Anderson.
Waterloo.....	Lawrence.....	Hayne, Houskeeper.
West Manchester.....	Preble.....	Martindale, Brennenman, Anderson.

Friday and Saturday, December 12-13.

Town.	County.	Speakers.
Amesville.....	Athens.....	Begg, Riggs, Anderson.
Bowerston.....	Harrison.....	Nicodemus, Moore, Dorsey.
Chestnut Level.....	Belmont.....	Buchanan, C. W. Elliott, Dorsey.
Delta M. E. Church (South Point).....	Lawrence.....	Hayne, Houskeeper, Durbin.
Hilliard.....	Franklin.....	Wagner, Hoddy, Anderson.
Keiths.....	Noble.....	Markley, Blackford, Durbin.
Latham.....	Pike.....	Gordon, W. P. Elliott, Laws.
Okeana.....	Butler.....	Martindale, Brennenman, Laws.
Richfield.....	Lucas.....	Baldwin, Bugby.

Monday and Tuesday, December 15-16.

Town.	County.	Speakers.
Archbold.....	Fulton.....	Baldwin, Harsh.
Batesville.....	Noble.....	Markley, W. P. Elliott, Dorsey.
Bloomfield.....	Muskingum.....	Nicodemus, Scott, Dorsey.
Broadway.....	Union.....	Wagner, Bowsher, Plotner.
Brookfield.....	Trumbull.....	Moore, Knisely, Anderson.
Canfield.....	Mahoning.....	Spencer, Hoddy, Anderson.
Clarington.....	Monroe.....	Buchanan, Montgomery, Durbin.
Cove.....	Jackson.....	Gordon, Kibler, Laws.
Jeromesville.....	Ashland.....	Smith, Burkholder, Riedinger.
Laurel.....	Clermont.....	Martindale, Tressler.
Rutland.....	Meigs.....	Houskeeper, Robertson, Laws.
Selma.....	Clark.....	Brigham, Green, Plotner.
Tiverton.....	Coshocton.....	Hayne, Blackford, Riedinger.
Unity (Postoffice Somerset).....	Perry.....	Begg, C. W. Elliott, Durbin.

Wednesday and Thursday, December 17-18.

Town.	County.	Speakers.
Alfred.....	Meigs.....	Houskeeper, Robertson, Laws.
Amanda.....	Fairfield.....	Wagner, Bowsher, Dorsey.
Bellbrook.....	Greene.....	Brigham, Green, Plotner.
Decatur.....	Brown.....	Martindale, Tressler.
Edon.....	Williams.....	Baldwin, Harsh, Anderson.
New Salem.....	Fairfield.....	Begg, C. W. Elliott, Dorsey.
North Jackson.....	Mahoning.....	Moore, Knisely, Anderson.
Petersburg.....	Carroll.....	Nicodemus, Scott, Riedinger.
Pleasant City.....	Guernsey.....	Markley, W. P. Elliott, Durbin.
Ragersville.....	Tuscarawas.....	Hayne, Blackford, Riedinger.
Scioto.....	Scioto.....	Gordon, Kibler.
Summerfield.....	Noble.....	Buchanan, Montgomery, Laws.
Watkins.....	Union.....	Smith, Burkholder, Plotner.
West Point.....	Columbiana.....	Spencer, Hoddy, Durbin.

Friday and Saturday, December 19-20.

Town.	County.	Speakers.
Antrim.....	Guernsey.....	Hayne, Blackford, Riedinger.
Barnhart School House.....	Monroe.....	Nicodemus, Scott, Laws.
Beallsville.....	Monroe.....	Markley, W. P. Elliott, Laws.
Brighton.....	Lorain.....	Baldwin, Harsh, Anderson.
Hanging Rock.....	Lawrence.....	Gordon, Kibler.
Harveysburg.....	Warren.....	Brigham, Green, Plotner.
Harlem Springs.....	Carroll.....	Spencer, Hoddy, Riedinger.
Logan.....	Hocking.....	Wagner, Bowsher, Dorsey.
Marysville.....	Union.....	Begg, C. W. Elliott, Plotner.
Oak Hill.....	Jackson.....	Houskeeper, Robertson, Dorsey.
Perry.....	Lake.....	Moore, Knisely, Durbin.
Rainsboro.....	Highland.....	Martindale, Tressler.
Renrock.....	Noble.....	Buchanan, Montgomery.
Thompson.....	Geauga.....	Smith, Burkholder, Durbin.

Monday and Tuesday, December 22-23.

Town.	County.	Speakers.
Anna.....	Shelby.....	Begg, Galehouse.
Bellaire.....	Belmont.....	Hayne, Allen.
Bloomington.....	Fayette.....	Brennenman, Dunham.
Bloomingtondale.....	Jefferson.....	Markley, Nicodemus.
Bremen.....	Fairfield.....	Brigham, Green.
Cassville.....	Harrison.....	Spencer, Burlingame.
Carlisle.....	Warren.....	Gordon, Kibler, True Houser.
Coolville.....	Athens.....	Wagner, J. S. Houser.

CALENDAR OF INSTITUTES

TO BE HELD IN OHIO FROM DECEMBER 1, 1913, TO FEBRUARY 28, 1914, WITH
DATES, PLACES, COUNTIES AND SPEAKERS.

Monday and Tuesday, December 1-2.

Town.	County.	Speakers.
Allenville.....	Vinton.....	Houskeeper, Hoddy, Durbin.
Camp.....	Pike.....	Begg, W. P. Elliott.
Esto.....	Knox.....	Moore, High, Anderson.
Knox.....	Vinton.....	Markley, Scott, Durbin.
Sugar Creek Church (Strobel).....	Lawrence.....	Burlingame, Blackford.
New Richmond.....	Clermont.....	Hayne, Riggs, Laws.
Seaman.....	Adams.....	Gordon, C. W. Elliott.

Wednesday and Thursday, December 3-4.

Town.	County.	Speakers.
Congress.....	Wayne.....	Moore, High, Anderson.
Fairfield Church (Green Twp.).....	Gallia.....	Blackford, Burlingame.
Payetteville.....	Brown.....	Gordon, C. W. Elliott, Laws.
Frankfort.....	Ross.....	Houskeeper, Hoddy.
Guyaville.....	Athens.....	Markley, Scott, Durbin.
Ripley.....	Brown.....	Hayne, Riggs, Laws.
Valley Grange Hall.....	Jackson.....	Begg, W. P. Elliott, Durbin.

Friday and Saturday, December 5-6.

Town.	County.	Speakers.
Greenwich.....	Huron.....	Moore, High, Anderson.
Hamersville.....	Brown.....	Hayne, Riggs, Laws.
Mt. Joy.....	Scioto.....	Houskeeper, Hoddy, Durbin.
Noelyville.....	Morgan.....	Markley, Scott.
New Plymouth.....	Vinton.....	Burlingame, Blackford.
Vinton.....	Gallia.....	Begg, W. P. Elliott, Durbin.
Williamsburg.....	Clermont.....	Gordon, C. W. Elliott, Laws.

Monday and Tuesday, December 8-9.

Town.	County.	Speakers.
Beardshear Church.....	Montgomery.....	Martindale, Brennehan, Anderson.
Blanchester.....	Clinton.....	Gordon, W. P. Elliott, Laws.
Burlingham.....	Meigs.....	Begg, Riggs, Durbin.
Colerain.....	Belmont.....	Nicodemus, Moore.
Haverhill.....	Scioto.....	Hayne, Houskeeper, Durbin.
Jewett.....	Harrison.....	Buchanan, C. W. Elliott, Dorsey.
Mountville.....	Morgan.....	Markley, Blackford.
Morning Sun.....	Preble.....	Wagner, Hody, Laws.
West Mansfield.....	Logan.....	Baldwin, Bugby, Anderson.

Wednesday, and Thursday, December 10-11.

Town.	County.	Speakers.
Athens.....	Athens.....	Markley, Blackford, Durbin.
Centerville.....	Belmont.....	Nicodemus, Moore, Dorsey.
Chester.....	Meigs.....	Begg, Riggs, Durbin.
Hamilton.....	Butler.....	Wagner, Hody, Laws.
Smithfield.....	Jefferson.....	Buchanan, C. W. Elliott, Dorsey.
Sugar Tree Ridge.....	Highland.....	Gordon, W. P. Elliott, Laws.
Sunbury.....	Delaware.....	Baldwin, Bugby, Anderson.
Waterloo.....	Lawrence.....	Hayne, Houskeeper.
West Manchester.....	Preble.....	Martindale, Brennehan, Anderson.

Friday and Saturday, December 12-13.

Town.	County.	Speakers.
Amesville.....	Athens.....	Begg, Riggs, Anderson.
Bowerston.....	Harrison.....	Nicodemus, Moore, Dorsey.
Chestnut Level.....	Belmont.....	Buchanan, C. W. Elliott, Dorsey.
Delta M. E. Church.....	Lawrence.....	Hayne, Houskeeper, Durbin.
(South Point)		
Hilliard.....	Franklin.....	Wagner, Hoddy, Anderson.
Keiths.....	Noble.....	Markley, Blackford, Durbin.
Latham.....	Pike.....	Gordon, W. P. Elliott, Laws.
Okeana.....	Butler.....	Martindale, Brenneman, Laws.
Richfield.....	Lucas.....	Baldwin, Bugby.

Monday and Tuesday, December 15-16.

Town.	County.	Speakers.
Archbold.....	Fulton.....	Baldwin, Harsh.
Batesville.....	Noble.....	Markley, W. P. Elliott, Dorsey.
Bloomfield.....	Muskingum.....	Nicodemus, Scott, Dorsey.
Broadway.....	Union.....	Wagner, Bowsher, Plotner.
Brookfield.....	Trumbull.....	Moore, Knisely, Anderson.
Canfield.....	Mahoning.....	Spencer, Hoddy, Anderson.
Clarington.....	Monroe.....	Buchanan, Montgomery, Durbin.
Cove.....	Jackson.....	Gordon, Kibler, Laws.
Jeromesville.....	Ashland.....	Smith, Burkholder, Riedinger.
Laurel.....	Clermont.....	Martindale, Tressler.
Rutland.....	Meigs.....	Houskeeper, Robertson, Laws.
Selma.....	Clark.....	Brigham, Green, Plotner.
Tiverton.....	Coshocton.....	Hayne, Blackford, Riedinger.
Unity (Postoffice Somerset).....	Perry.....	Begg, C. W. Elliott, Durbin.

Wednesday and Thursday, December 17-18.

Town.	County.	Speakers.
Alfred.....	Meigs.....	Houskeeper, Robertson, Laws.
Amanda.....	Fairfield.....	Wagner, Bowsher, Dorsey.
Bellbrook.....	Greene.....	Brigham, Green, Plotner.
Decatur.....	Brown.....	Martindale, Tressler.
Edon.....	Williams.....	Baldwin, Harsh, Anderson.
New Salem.....	Fairfield.....	Begg, C. W. Elliott, Dorsey.
North Jackson.....	Mahoning.....	Moore, Knisely, Anderson.
Petersburg.....	Carroll.....	Nicodemus, Scott, Riedinger.
Pleasant City.....	Guernsey.....	Markley, W. P. Elliott, Durbin.
Ragersville.....	Tuscarawas.....	Hayne, Blackford, Riedinger.
Scioto.....	Scioto.....	Gordon, Kibler.
Summerfield.....	Noble.....	Buchanan, Montgomery, Laws.
Watkins.....	Union.....	Smith, Burkholder, Plotner.
West Point.....	Columbiana.....	Spencer, Hoddy, Durbin.

Friday and Saturday, December 19-20.

Town.	County.	Speakers.
Antrim.....	Guernsey.....	Hayne, Blackford, Riedinger.
Barnhart School House.....	Monroe.....	Nicodemus, Scott, Laws.
Beallsville.....	Monroe.....	Markley, W. P. Elliott, Laws.
Brighton.....	Lorain.....	Baldwin, Harsh, Anderson.
Hanging Rock.....	Lawrence.....	Gordon, Kibler.
Harveysburg.....	Warren.....	Brigham, Green, Plotner.
Harlem Springs.....	Carroll.....	Spencer, Hoddy, Riedinger.
Logan.....	Hocking.....	Wagner, Bowsher, Dorsey.
Marysville.....	Union.....	Begg, C. W. Elliott, Plotner.
Oak Hill.....	Jackson.....	Houskeeper, Robertson, Dorsey.
Perry.....	Lake.....	Moore, Knisely, Durbin.
Rainsboro.....	Highland.....	Martindale, Tressler.
Renock.....	Noble.....	Buchanan, Montgomery.
Thompson.....	Geauga.....	Smith, Burkholder, Durbin.

Monday and Tuesday, December 22-23.

Town.	County.	Speakers.
Anna.....	Shelby.....	Begg, Galehouse.
Bellaire.....	Belmont.....	Hayne, Allen.
Bloomington.....	Fayette.....	Brenneman, Dunham.
Bloomington.....	Jefferson.....	Markley, Nicodemus.
Bremen.....	Fairfield.....	Brigham, Green.
Cassville.....	Harrison.....	Spencer, Burlingame.
Carlisle.....	Warren.....	Gordon, Kibler, True Houser.
Coolville.....	Athens.....	Wagner, J. S. Houser.

Monday and Tuesday, December 22—23—Concluded.

Town.	County.	Speakers.
Garrettsville.....	Portage.....	Smith, Burkholder.
Grover Hill.....	Paulding.....	Herrick, Hummon.
Houston.....	Shelby.....	Blackford, High.
Lowell.....	Washington.....	Buchanan, W. P. Elliott.
Olmstead Falls.....	Cuyahoga.....	Matheny, Hudson.
Shelby.....	Richland.....	Baldwin, Bugby.
Wilkesville.....	Vinton.....	Houskeeper, Robertson.

Friday and Saturday, December 26-27.

Town.	County.	Speakers.
Bradford.....	Miami.....	Blackford, High.
Brownsville.....	Licking.....	Hayne, Allen.
Fox.....	Pickaway.....	Brigham, Green.
Kingscreek.....	Champaign.....	Begg, Galehouse.
Montezuma.....	Mercer.....	Nicodemus, Markley.
Morral.....	Marion.....	Baldwin, Bugby.
Ney.....	Defiance.....	Herrick, Himmon.
Pataskala.....	Licking.....	Wagner, J. S. Houser.
Pemberton.....	Shelby.....	Matheny, Brenneman.
Pleasant Valley.....	Morgan.....	Buchanan, W. P. Elliott.
Portersville.....	Perry.....	Gordon, Kibler.
Peoli.....	Tuscarawas.....	Houskeeper, Robertson.
Somerton.....	Belmont.....	Spencer, Burlingame.
Warren.....	Trumbull.....	Smith, Burkholder.

Monday and Tuesday, December 29-30.

Town.	County.	Speakers.
Adamsville.....	Muskingum.....	Gordon, Dobbins, Riedinger.
Albany.....	Athens.....	Buchanan, Green.
Ashland.....	Ashland.....	Herrick, Nicodemus.
Burton.....	Geauga.....	Miller, Blackford, Laws.
Byesville.....	Guernsey.....	Houskeeper, Spencer, Dorsey.
Democracy.....	Knox.....	Baldwin, Burkholder, Laws.
Franklin Township (Grange Hall).....	Licking.....	Markley, Tressler, Riedinger.
Lucasville.....	Scioto.....	Hummon, Copeland.
Moons.....	Fayette.....	Burlingame, Funk, Anderson.
Rushville.....	Fairfield.....	Hayne, Hoddy, Dorsey.
Trenton.....	Butler.....	Smith, Harsh.
Watertown.....	Washington.....	Brenneman, Hammond.
West Milton.....	Miami.....	Matheny, Tuttle, Plotner.
Magraw.....	Champaign.....	Begg, Coffey, Plottner.
Sidney.....	Shelby.....	Wagner, Galehouse.
South Salem.....	Ross.....	Brigham, Robertson, Anderson.

Wednesday and Thursday, December 31-January 1.

Town.	County.	Speakers.
Ansonia.....	Darke.....	Wagner, Galehouse, Plotner.
Cedarville.....	Greene.....	Begg, Coffey, Plotner.
Groveport.....	Franklin.....	Hudson, Hayne.
Kingman.....	Clinton.....	Matheny, Tuttle.
Lynchburg.....	Highland.....	Hummon, Copeland, Dorsey.
Manchester.....	Adams.....	Burlingame, Funk.
Marengo.....	Morrow.....	Baldwin, Burkholder, Riedinger.
New Rumley.....	Harrison.....	Houskeeper, Spencer.
Racine.....	Meigs.....	Buchanan, Green, Anderson.
Reinersville.....	Morgan.....	Brenneman, Hammond, Anderson.
Rehoboth.....	Perry.....	Markley, Tressler.
Rock Creek.....	Ashtabula.....	Miller, Blackford.
Sinking Springs.....	Highland.....	Brigham, Robertson, Dorsey.
Springdale.....	Hamilton.....	Smith, Harsh.
Vanatta.....	Licking.....	Gordon, Dobbins, Riedinger.
West Salem.....	Wayne.....	Herrick, Nicodemus.

Friday and Saturday, January 2-3.

Town.	County.	Speakers.
Ashville.....	Pickaway.....	Hudson, Hayne, Plotner.
Bartlett.....	Washington.....	Markley, Tressler, Riedinger.
Campbellstown.....	Preble.....	Wagner, Galehouse.
Clinton.....	Summit.....	Herrick, Nicodemus.
Geneva.....	Ashtabula.....	Miller, Blackford.
Harrison.....	Hamilton.....	Smith, Harsh.
Laesburg.....	Highland.....	Matheny, Tuttle, Laws.
Levering.....	Knox.....	Gordon, Dobbins, Plotner.

Friday and Saturday, January 2-3—Concluded.

Town.	County.	Speakers.
Mt. Pleasant.....	Jefferson.....	Houskeeper, Spencer.
Newtown.....	Hamilton.....	Punk, Burlingame.
Peebles.....	Adams.....	Copeland, Hummon, Dorsey.
Port William.....	Clinton.....	Begg, Coffey, Laws.
Rix Mills.....	Muskingum.....	Brenneman, Hammond, Riedinger.
Sardinia.....	Brown.....	Brigham, Robertson, Dorsey.
Walnut M. E. Church.....	Gallia.....	Buchanan, Green, Anderson.
York.....	Union.....	Baldwin, Burkholder, Anderson.

Monday and Tuesday, January 5-6.

Town.	County.	Speakers.
Carrollton.....	Carroll.....	Houskeeper, Burlingame, Durbin.
Centerville.....	Montgomery.....	Baldwin, Dobbins.
Custar.....	Wood.....	Herrick, Hummon.
Germantown.....	Montgomery.....	Wagner, Coffey.
Glenford.....	Perry.....	Blackford, Hammond, Plotner.
Kipton.....	Lorain.....	Scott, Brenneman.
Magnolia.....	Carroll.....	Carmichael, Knisely, Durbin.
McComb.....	Hancock.....	Begg, Smith.
New Holland.....	Pickaway.....	Hudson, Montgomery, Plotner.
Pomaria Church.....	Lawrence.....	Buchanan, Green.
(Near Proctorville.)		
Sardis.....	Monroe.....	Nicodemus, Spencer, Dorsey.
Wamsley.....	Adams.....	Brigham, Hayne, Laws.
Westboro.....	Clinton.....	Burkholder, Tressler, Laws.
Woodsfield.....	Monroe.....	Markley, Robertson, Dorsey.
Shiloh.....	Richland.....	Gordon, Thomas.

Wednesday and Thursday, January 7-8.

Town.	County.	Speakers.
Adelphi.....	Ross.....	Hudson, Montgomery, Plotner.
Antwerp.....	Paulding.....	Herrick, Hummon.
Bethel.....	Clermont.....	Burkholder, Tressler, Laws.
Columbia Center.....	Lorain.....	Scott, Brenneman.
Deshler.....	Henry.....	Begg, Smith.
Empire Grange Hall.....	Scioto.....	Brigham, Hayne.
Fairview.....	Guernsey.....	Markley, Robertson, Dorsey.
Harrisburg.....	Stark.....	Houskeeper, Burlingame, Durbin.
Kinderhook.....	Pickaway.....	Blackford, Hammond, Plotner.
Lebanon.....	Warren.....	Baldwin, Dobbins, Laws.
Leo.....	Jackson.....	Buchanan, Green.
Lindsey.....	Sandusky.....	Miller, Knisely, Durbin.
New Washington.....	Crawford.....	Gordon, Thomas.
Quincy.....	Logan.....	Wagner, Coffey.
Whipple.....	Washington.....	Nicodemus, Spencer, Dorsey.

Friday and Saturday, January 9-10.

Town.	County.	Speakers.
Cassella.....	Mercer.....	Wagner, Coffey.
Convoy.....	Van Wert.....	Herrick, Hummon.
Cynthiana.....	Pike.....	Blackford, Hammond, Plotner.
Eaton.....	Preble.....	Carmichael, Knisely, Laws.
Haviland.....	Paulding.....	Smith, Begg.
Laurelville.....	Hocking.....	Brigham, Hayne.
Miami.....	Hamilton.....	Baldwin, Dobbins, Laws.
Milford.....	Clermont.....	Burkholder, Tressler.
Otsego.....	Muskingum.....	Markley, Robertson, Dorsey.
Piketon.....	Pike.....	Buchanan, Green, Plotner.
Sharon Center.....	Medina.....	Scott, Brenneman, Durbin.
Summerford.....	Madison.....	Hudson, Montgomery, Anderson.
Triadelphia.....	Morgan.....	Nicodemus, Spencer, Dorsey.
Upper Sandusky.....	Wyandot.....	Gordon, Thomas.
Wilmot.....	Stark.....	Houskeeper, Burlingame, Durbin.

Monday and Tuesday, January 12-13.

Town.	County.	Speakers.
Alton.....	Franklin.....	Hudson, Montgomery, Durbin.
Berkey.....	Lucas.....	Herrick, Hummon.
Bloomdale.....	Wood.....	Wagner, Crumley.
Catawba.....	Clark.....	Robertson, Tressler, Dorsey.
Copley Center.....	Summit.....	Houskeeper, Scott.
Hicksville.....	Defiance.....	Smith, Harsh.

Monday and Tuesday, January 12-13—Concluded.

Town.	County.	Speakers.
Jackson.....	Jackson.....	Brigham, Brenneman, Plotner.
Kenton.....	Hardin.....	Gordon, Burlingame.
Kimbolton.....	Guernsey.....	Spencer, Cook, Durbin.
Oxford.....	Butler.....	Begg, Gossard, Laws.
Piedmont.....	Harrison.....	Markley, Hoddy.
West Jefferson.....	Madison.....	Nicodemus, Copeland, Laws.
West Union.....	Adams.....	Buchanan, Blackford, Plotner.

STATE MEETING AT COLUMBUS, OHIO, JANUARY 14-15.

Friday and Saturday, January 16-17.

Town.	County.	Speakers.
Agosta.....	Marion.....	Hudson, Montgomery, Durbin.
Adena.....	Jefferson.....	Markley, Hoddy.
Bethlehem Grange Hall.....	Coshocton.....	Buchanan, Blackford, Durbin.
Blackleyville.....	Wayne.....	Smith, Harsh, Dorsey.
Blissfield.....	Coshocton.....	Baldwin, Burkholder, Plotner.
Carroll.....	Fairfield.....	Brigham, Brenneman, Anderson.
Gibsonburg.....	Sandusky.....	Herrick, Hummon.
Grove Church (Gambier).....	Knox.....	Spencer, Cook, Plotner.
Jeffersonville.....	Payette.....	Scott, Tressler, Anderson.
New Lebanon.....	Montgomery.....	Begg, Gossard.
Remson Corners.....	Medina.....	Houskeeper, Robertson.
Richwood.....	Union.....	Gordon, Burlingame, Laws.
Tiffin.....	Seneca.....	Wagner, Crumley, Dorsey.
West Point.....	Morrow.....	Nicodemus, Copeland, Laws.

Monday and Tuesday, January 19-20.

Town.	County.	Speakers.
Ada.....	Hardin.....	Begg, Crumley, Dorsey.
Alexandria.....	Licking.....	Brigham, Scott, Anderson.
Bath Center.....	Summit.....	Smith, Harsh, Riedinger.
Crescent.....	Gallia.....	Hayne, Tressler.
Grafton.....	Lorain.....	Houskeeper, Blackford, Riedinger.
Holmesville.....	Holmes.....	Spencer, Thomas, Laws.
Nova.....	Ashland.....	Wagner, Brenneman, Anderson.
Payne.....	Paulding.....	Martindale, Herrick, Plotner.
Perkins.....	Erie.....	Nicodemus, Hummon.
Richmond.....	Jefferson.....	Markley, Bugby.
Robertsville.....	Stark.....	Buchanan, Dobbins.
Sharon Church.....	Henry.....	Montgomery, Hammond, Dorsey.
Wadell.....	Morrow.....	Gordon, Bowsher, Laws.
Wren.....	Van Wert.....	Hudson, Matheny, Plotner.

Wednesday and Thursday, January 21-22.

Town.	County.	Speakers.
Brunswick.....	Medina.....	Nicodemus, Hummon, Laws.
Columbiana.....	Columbiana.....	Buchanan, Dobbins.
Dexter City.....	Noble.....	Hayne, Tressler.
Edinburg.....	Portage.....	Smith, Harsh, Riedinger.
Gnadenhuetten.....	Tuscarawas.....	Markley, Bugby.
Iberia.....	Morrow.....	Brigham, Scott, Dorsey.
Leipsic.....	Putnam.....	Martindale, Herrick, Plotner.
Loudonville.....	Ashland.....	Gordon, Bowsher, Anderson.
Olena.....	Huron.....	Houskeeper, Blackford, Anderson.
Smithville.....	Wayne.....	Spencer, Thomas, Laws.
Strongsville.....	Cuyahoga.....	Wagner, Brenneman, Riedinger.
Venedocia.....	Van Wert.....	Montgomery, Hammond.
Wabash.....	Mercer.....	Hudson, Matheny, Plotner.
Wharton.....	Wyandot.....	Begg, Crumley, Dorsey.

Friday and Saturday, January 23-24.

Town.	County.	Speakers.
Berlin.....	Holmes.....	Markley, Bugby.
Berlin Center.....	Mahoning.....	Buchanan, Dobbins, Riedinger.
Crestline.....	Crawford.....	Begg, Crumley, Dorsey.
Dunkirk.....	Hardin.....	Brigham, Scott, Dorsey.
East Palestine.....	Columbiana.....	Smith, Harsh, Riedinger.
Jenera.....	Hancock.....	Martindale, Herrick.

Friday and Saturday, January 23-24—Concluded.

Town.	County.	Speakers.
Kent.....	Portage.....	Spencer, Thomas, Laws.
Mayfield.....	Cuyahoga.....	Wagner, Brenneman, Laws.
Neptuna.....	Mercer.....	Hudson, Matheny, Plotner.
Orrville.....	Wayne.....	Gordon, Bowsher, Anderson.
Plymouth.....	Richland.....	Houskeeper, Blackford, Anderson.
Townsend.....	Huron.....	Nicodemus, Hummon.
Lightsville.....	Darke.....	Montgomery, Hammond, Plotner.

Monday and Tuesday, January 26-27.

Town.	County.	Speakers.
Bellville.....	Richland.....	Begg, J. S. Houser, Anderson.
Brownhelm.....	Lorain.....	Wagner, Hayden, Laws.
Chatham.....	Medina.....	Gordon, Cook, Dorsey.
Elmore.....	Ottawa.....	Goodwin, Knisely, Laws.
Kinsman.....	Trumbull.....	Buchanan, Montgomery, Riedinger.
Lafayette.....	Allen.....	Blackford, Martindale.
Mesopotamia.....	Trumbull.....	Smith, Nicodemus, Riedinger.
Moultrie.....	Columbiana.....	Markley, Dunham, Anderson.
Mt. Cory.....	Hancock.....	Brigham, Dobbins.
New Carlisle.....	Clark.....	Hudson, Scott.
Plain City.....	Madison.....	Harsh, Hummon.
Savannah.....	Ashland.....	Houskeeper, Hoddy, Dorsey.

Wednesday and Thursday, January 28-29

Town.	County.	Speakers.
Brecksville.....	Cuyahoga.....	Markley, Dunham, Riedinger.
Bucyrus.....	Crawford.....	Houskeeper, Hoddy, Anderson.
Edgerton.....	Williams.....	Goodwin, Martindale.
Forest.....	Hardin.....	Knisely, Blackford, Anderson.
Glenmont.....	Holmes.....	Begg, J. S. Houser, Dorsey.
Versailles.....	Darke.....	Hudson, Scott.
Lindenville.....	Ashtabula.....	Buchanan, Montgomery.
Manchester.....	Summit.....	Gordon, Cook, Dorsey.
Montville.....	Geauga.....	Smith, Nicodemus, Riedinger.
Republic.....	Seneca.....	Brigham, Dobbins, Laws.
Springhill.....	Champaign.....	Harsh, Hummon.
Woodville.....	Sandusky.....	Wagner, Hayden, Laws.

Friday and Saturday, January 30-31.

Town.	County.	Speakers.
Cridersville.....	Auglaize.....	Martindale, Blackford, Anderson.
Donnelsville.....	Clark.....	Harsh, Hummon, Anderson.
Freedom.....	Portage.....	Buchanan, Montgomery, Riedinger.
Grand Rapids.....	Wood.....	Wagner, Hayden.
New Bremen.....	Auglaize.....	Hudson, Scott.
Perry Grange Hall.....	Coshocton.....	Begg, J. S. Houser, Dorsey.
Pierpont.....	Ashtabula.....	Smith, Nicodemus.
Sebring.....	Mahoning.....	Markley, Dunham, Riedinger.
Sycamore.....	Wyandot.....	Houskeeper, Hoddy, Laws.
Wakeman.....	Huron.....	Brigham, Dobbins, Laws.
Williamsfield.....	Ashtabula.....	Gordon, Cook, Dorsey.

Monday and Tuesday, February 2-3.

Town.	County.	Speakers.
Aurora.....	Portage.....	Smith, Funk, Dorsey.
Berlin Heights.....	Erie.....	Scott, Tressler, Plotner.
Burghill.....	Trumbull.....	Gordon, Hoddy, Dorsey.
Genoa.....	Ottawa.....	Brigham, Blackford.
Mt. Hope.....	Holmes.....	Buchanan, Hayne, Durbin.
Ostrander.....	Delaware.....	Markley, Tuttle, Durbin.
South Solon.....	Madison.....	Hudson, Montgomery, Laws.
Vanlue.....	Hancock.....	Houskeeper, Hummon, Plotner.
Walhonding.....	Coshocton.....	Wagner, Ballou, Anderson.
West Alexandria.....	Preble.....	Nicodemus, Hummon.
Winfield.....	Tuscarawas.....	Begg, Galehouse, Anderson.

Wednesday and Thursday, February 4-5.

Town.	County.	Speakers.
Beaverdam.....	Allen.....	Houskeeper, Carmichael.
Canal Fulton.....	Stark.....	Begg, Knisely, Durbin.
Castalia.....	Erie.....	Scott, Tressler, Plotner.
Chesterland.....	Geauga.....	Smith, Funk, Dorsey.
Dresden.....	Muskingum.....	Wagner, Ballou.
Fayette.....	Fulton.....	Brigham, Blackford, Plotner.
Fredericktown.....	Knox.....	Buchanan, Hayne, Anderson.
Gettysburg.....	Darke.....	Nicodemus, Hummon.
Greenford.....	Mahoning.....	Gordon, Hoddy, Durbin.
Marion.....	Marion.....	Markley, Tuttle, Anderson.
Mingo.....	Champaign.....	Hudson, Montgomery.

Friday and Saturday, February 6-7.

Town.	County.	Speakers.
Buckland.....	Auglaize.....	Houskeeper, Carmichael, Plotner.
Damascus.....	Columbiana.....	Gordon, Hoddy, Durbin.
Delaware.....	Delaware.....	Buchanan, Hayne, Anderson.
Hudson.....	Summit.....	Begg, Knisely, Durbin.
Liberty Center.....	Henry.....	Brigham, Blackford, Plotner.
Lucas.....	Richland.....	Wagner, Ballou, Anderson.
Medina.....	Medina.....	Smith, Funk.
New Haven.....	Hamilton.....	Nicodemus, Hummon.
Nevada.....	Wyandot.....	Markley, Tuttle.
North Hampton.....	Clark.....	Dunham, Montgomery.
Oak Harbor.....	Ottawa.....	Scott, Tressler.

Monday and Tuesday, February 9-10.

Town.	County.	Speakers.
Bedford.....	Cuyahoga.....	Begg, Ballou.
Caledonia.....	Marion.....	Buchanan, Hayne, Riedinger.
Defiance.....	Defiance.....	Brigham, Hummon.
Delphos.....	Allen.....	Smith, Funk, Durbin.
Harrod.....	Allen.....	Markley, Tressler, Durbin.
Metamora.....	Fulton.....	Scott, Harsh.
New Burlington.....	Greene.....	Hudson, Blackford.
Ottoville.....	Putnam.....	Wagner, J. S. Houser.
Sherodsville.....	Carroll.....	Gordon, Thomas.
Van Buren.....	Hancock.....	Baldwin, Copeland, Riedinger.
West Liberty.....	Logan.....	Houskeeper, Nicodemus.

Wednesday and Thursday, February 11-12.

Town.	County.	Speakers.
Butlerville.....	Warren.....	Hudson, Blackford.
Chardon.....	Geauga.....	Begg, Ballou.
Covington.....	Miami.....	Houskeeper, Nicodemus, Durbin.
Curtice.....	Ottawa.....	Baldwin, Copeland.
Jackson Center.....	Shelby.....	Markley, Tressler.
Kalida.....	Putnam.....	Smith, Funk, Riedinger.
Ohio City.....	Van Wert.....	Wagner, J. S. Houser, Riedinger.
Sandyville.....	Tuscarawas.....	Gordon, Hayne.
Tiro.....	Crawford.....	Buchanan, Thomas.
Uniopolis.....	Auglaize.....	Brigham, Hummon, Durbin.
Wauseon.....	Fulton.....	Scott, Harsh.

Friday and Saturday, February 13-14.

Town.	County.	Speakers.
Battlesburg.....	Stark.....	Gordon, Hayne.
Bettsville.....	Seneca.....	Buchanan, Thomas.
Chattanooga.....	Mercer.....	Brigham, J. S. Houser.
Columbus Grove.....	Putnam.....	Markley, Tressler, Riedinger.
East Liberty.....	Logan.....	Wagner, Hummon, Durbin.
Oakwood.....	Paulding.....	Smith, Funk, Riedinger.
Pemberville.....	Wood.....	Baldwin, Copeland.
North Fairfield.....	Huron.....	Begg, Ballou.
Stockdale.....	Pike.....	Hudson, Blackford.
Stryker.....	Williams.....	Scott, Harsh.
Vandalia.....	Montgomery.....	Houskeeper, Nicodemus, Durbin.

Monday and Tuesday, February 16-17.

Town.	County.	Speakers.
Bellevue.....	Sandusky.....	Begg, Goodwin, Anderson.
Hamler.....	Henry.....	Baldwin, Nicodemus.
Jamestown.....	Greene.....	Houskeeper, Hummon, Riedinger.
Milan.....	Erie.....	Buchanan, Dunham, Anderson.
New Madison.....	Darke.....	Wagner, Cook, Plotner.
Peachblow.....	Delaware.....	Gordon, Blackford, Plotner.
Sherwood.....	Defiance.....	Smith, Hoddy.
Woodstock.....	Champaign.....	Brigham, Tressler, Riedinger.

Wednesday and Thursday, February 18-19.

Town.	County.	Speakers.
Casstown.....	Miami.....	Wagner, Cook, Plotner.
Postoria.....	Seneca.....	Begg, Goodwin, Anderson.
Kunkle.....	Williams.....	Smith, Hoddy.
Mason.....	Warren.....	Houskeeper, Hummon, Riedinger.
Port Clinton.....	Ottawa.....	Buchanan, Dunham, Anderson.
Spring Valley.....	Greene.....	Brigham, Tressler, Riedinger.
Waldo.....	Marion.....	Gordon, Blackford.
Wetsel.....	Van Wert.....	Baldwin, Nicodemus, Plotner.

Friday and Saturday, February 20-21.

Town.	County.	Speakers.
Belle Center.....	Logan.....	Baldwin, Blackford, Plotner.
Continental.....	Putnam.....	Gordon, Nicodemus.
McClure.....	Henry.....	Smith, Hoddy, Anderson.
Monclova.....	Lucas.....	Buchanan, Dunham.
Monroe.....	Butler.....	Houskeeper, Hummon, Riedinger.
Mt. Sterling.....	Madison.....	Wagner, Cook, Plotner.
New Vienna.....	Clinton.....	Brigham, Tressler, Riedinger.
North Baltimore.....	Wood.....	Begg, Goodwin, Anderson.

Monday and Tuesday, February 23-24.

Town.	County.	Speakers.
Darbyville.....	Pickaway.....	Brigham, Harsh, Durbin.
Greenspring.....	Seneca.....	Buchanan, Scott, Riedinger.
New Albany.....	Franklin.....	Wagner, Gossard, Durbin.
Waterville.....	Lucas.....	Begg, Brenneman, Waterville.

Wednesday and Thursday, February 25-26.

Town.	County.	Speakers.
Delta.....	Fulton.....	Buchanan, Scott, Riedinger.
Pleasant Corners.....	Franklin.....	Brigham, Harsh, Plotner.
Roundhead.....	Hardin.....	Begg, Brenneman.
Thornville.....	Perry.....	Wagner, Gossard, Plotner.

Friday and Saturday, February 27-28.

Town.	County.	Speakers.
Ashley.....	Delaware.....	Brigham, Harsh, Plotner.
Edison.....	Morrow.....	Wagner, Gossard, Plotner.
Killbuck.....	Holmes.....	Buchanan, Scott.
West Unity.....	Williams.....	Begg, Brenneman.

AGRICULTURAL EXTENSION SCHOOL.

1913-1914.

Date.	County.	Town.
November 24-28.....	Belmont.....	Barnesville.
	Payette.....	Good Hope.
	Medina.....	Lodi.
December 1-5	Morgan.....	Cloud.
	Logan.....	DeGraff.
	Stark.....	Louisville.
December 8-12.....	Fairfield.....	Baltimore.
	Auglaize.....	Waynesfield.
	Noble.....	Caldwell.
December 15-19.....	Guernsey.....	Cumberland.
	Hardin.....	Mt. Victory.
	Gallia.....	Rio Grande.
December 29-January 2.....	Columbiana.....	Salineville.
	Greene.....	Beaver Creek.
	Union.....	Milford Center.
January 5-9.....	Lake.....	Madison.
	Miami.....	Fletcher.
	Montgomery.....	Brookville.
January 12-16.....	Williams.....	Montpelier.
	Hancock.....	Mt. Blanchard.
	Champaign.....	Mechanicsburg.
January 19-23.....	Fulton.....	Lyons.
	Allen.....	Bluffton.
	Geauga.....	Welshfield.
January 26-30.....	Harrison.....	New Athens.
	Ross.....	Clarksburg.
	Coshocton.....	Fresno.
February 2-6.....	Franklin.....	Columbus.
February 9-13.....	Erie.....	Vermilion.
	Clinton.....	Sabina.
	Defiance.....	Farmer.
February 16-20.....	Mercer.....	Rockford.
	Preble.....	Gratis.
	Clark.....	Springfield.
February 23-27.....	Holmes.....	Nashville.
	Seneca.....	Attica.
	Wayne.....	Smithville.
March 2-6.....	Sandusky.....	Clyde.
	Huron.....	N. Fairfield.
	Ashtabula.....	Orwell.
March 9-13.....	Washington.....	Barlow.
	Darke.....	Arcanum.
	Mahoning.....	Boardman.

FARMER INSTITUTE LAW IN OHIO.

As Amended and Passed April 15th, 1913.

(FIRST PASSED 1890 AMENDED APRIL, 1896, MARCH, 1906 AND APRIL, 1913.)

SECTION 9916. When twenty or more persons, residents of a county, organize themselves into a farmers' institute society, for the purpose of teaching better methods of farming, stock raising, fruit culture, and business connected with agriculture, and adopt a constitution and by-laws conforming to rules and regulations furnished by the agricultural commission, and when such society has elected proper officers and performed such other acts as are required by the rules of the commission, it shall be a body corporate.

SECTION 9917. Not to exceed five farmers' institute societies so organized shall hold annual meetings under the auspices of the agricultural commission in any one county. The commission may determine the number, and name the times and places for holding such institute meetings.

SECTION 9918. When a society so organized has held an annual farmers' institute meeting in accordance with the rules of the agricultural commission, the secretary of the commission shall issue certificates, one to the president of the farmers' institute society and one to the president of the agricultural commission, setting forth such facts. On the presentation of such certificates to the county auditor, he, each year shall draw orders on the treasurer of the county as follows: one in favor of the president of the Agricultural Commission for one hundred and seventy-five dollars and one in favor of the president of each farmers' institute society in the county, holding meetings under the auspices and by the direction of the agricultural commission, for the amount of the actual expenses and not to exceed twenty-five dollars to pay necessary local expenses, and when such expenses have been itemized and certified to by the president of an institute and submitted to the agricultural commission, such commission shall authorize the county auditor to issue a warrant, and the treasurer of the county shall pay them from the county fund. But in no county shall the total annual sum exceed three hundred dollars, nor shall the payment to a farmers' institute society exceed the expenses, as per detailed statement provided in the following section.

SECTION 9919. With each certificate of the secretary of the agricultural commission to the county auditor, which certificate shall

show the number of societies organized in the county and holding meetings by direction of the agricultural commission and before he issues his order on the treasurer, there shall be filed with the auditor a detailed statement of the expenses of the institute for the current year, no part of which shall be for salaries of officers of the institute society. This provision does not apply to the order in favor of the president of the agricultural commission.

SECTION 9920. At the annual farmers' institute meetings held as herein provided, and under the auspices of the agricultural commission, the commission shall furnish lecturers or speakers whose compensation and expenses it shall pay.

SECTION 9921. At the close of each season's institute work, the agricultural commission, in pamphlet or book form, may publish such lectures and papers delivered at the several institute meetings, as seem of general interest and importance to the farmers, stock breeders and horticulturists of the state, copies of which shall be furnished the secretary of each institute society, and the remainder be for general distribution. The cost of preparing and distributing the pamphlet or book shall be paid by the agricultural commission. The commission shall also publish therein a detailed statement of its receipts under the foregoing provisions, and the disbursements on account of institute work.

RULES

Of the Agricultural Commission for the Organization and Management of Farmer Institute Societies.

RULE 1. Parties who contemplate organizing Farmer Institute Societies and Farmer Institute Societies already organized desiring to hold meetings under the auspices of the Agricultural Commission, must first present a petition to the Commission for the same, signed by twenty or more residents of the county, without regard to sex, but all signers must be of legal age. In order that the Commission may act intelligently on such petitions, the petitioners should furnish replies to questions propounded by the Agricultural Commission concerning proposed place of meeting, capacity of hall or building to be occupied, railway facilities, etc. Blank petitions with the questions to be answered will be furnished on application. Said petitions should be filed with the Agricultural Commission on or before September 1.

RULE 2. After the petition for the holding of an institute meeting, shall have been granted, the petitioners will proceed to organize, if not already organized, by the election of a president, vice-president, secretary, treasurer and an executive committee of three (the president and secretary to be ex-officio members of this committee, making a committee of five), all to serve for the period of one year or until their successors are duly elected. After the first organization an election of officers shall be held during each annual institute meeting, **OF THE OFFICERS, NOT MORE THAN TWO SHALL BE ELECTED WHO ARE RESIDENTS OF THE SAME TOWNSHIP.**

RULE 3. As soon as an organization is completed it shall be reported to the Agricultural Commission, with the names and postoffice addresses of the officers and where institute is to be held.

RULE 4. The secretary of each institute society **SHALL KEEP IN A SUBSTANTIAL BOOK OR BOOKS A RECORD OF ALL MEETINGS** of the executive committee and society, and a roll of the members, with the postoffice address of each.

RULE 5. When an institute has been granted, and the date assigned for its meeting, the executive committee shall proceed to make arrangements for the institute by engaging hall, selecting local talent, arranging for music and all other details necessary. In arranging the

program, time shall be allowed for discussion of the topics presented and for questions. State speakers are not to occupy more than half the time, and local talent, discussions and music the remaining time.

RULE 6. THE PROGRAM SHOULD BE PUBLISHED FOR GENERAL DISTRIBUTION AT LEAST TWO WEEKS IN ADVANCE OF THE INSTITUTE MEETING, AND AT THE SAME TIME A COPY MAILED TO THE PRESIDENT OF THE AGRICULTURAL COMMISSION, AND TO EACH SPEAKER WHO IS TO TAKE PART.

RULE 7. Societies should thoroughly advertise and use diligence and enterprise to create an interest among the people and to secure the largest possible attendance. Every citizen of the county and locality ought to be informed as to the time, place and nature of the institute meeting. The executive committee must audit and settle all accounts made for and in behalf of the institute society.

RULE 8. All institute societies organized under the institute law of the state shall be strictly non-partisan and non-sectarian in every phase of their work, and no institute shall be conducted in the interest of any party, sect or society, but for the equal good of all citizens and farming communities.

RULE 9. The presiding officer of the various institute societies of the state, holding meetings under the auspices of the Agricultural Commission, should always and under all circumstances prohibit discussion of subjects other than those pertaining to agriculture, horticulture, stock breeding, etc.; anything of a sectarian or partisan character should not be discussed or commented upon either by speakers or members of institute societies; no criticisms of state, county or township officials should be tolerated under any circumstances.

RULE 10. NO FEE SHALL BE CHARGED FOR ADMISSION TO INSTITUTE MEETINGS HELD UNDER THE AUSPICES OF THE STATE AGRICULTURAL COMMISSION; THEY SHALL BE PUBLIC AND FREE TO ALL, the object being to impart agricultural knowledge and experience free to all persons who attend. If any society desires to hold quarterly, monthly or weekly meetings during the year, the expense of the same may be met by admission fees, subscriptions, collections or sale of season tickets. Nothing in this section shall prevent voluntary contributions or subscriptions for securing speakers desired other than those sent by the Agricultural Commission.

RULE 11. Within ten days after the close of each institute meeting, the secretary shall make a report to the Agricultural Commission, blanks for which will be furnished. On receipt of such report the Commission will issue a certificate, according to law, which will enable the society to draw the amount due from the county.

RULE 12. A society or its executive committee may, on the call

of the president, hold business meetings, to transact the business of the society and arrange for the annual institute meeting to be held under the auspices of the State Agricultural Commission.

RULE 13. When the secretary of a farmer institute society shall send a written report to the Agricultural Commission, as provided by section 11 of these Rules, he shall state the cost of the institute meeting (not including expense of speakers sent by the State Agricultural Commission), number in attendance during the meeting, speakers who filled appointments, whether speakers were acceptable or otherwise, and report any feature or matter of special interest.

RULE 14. The State Agricultural Commission requires that lecturers employed by the Commission shall devote their time and efforts to the discussion of such subjects as are clearly provided for by the institute law of the state, namely, "Farming, stock raising, fruit culture and all branches of business connected with the industry of agriculture."

RULE 15. Not more than twenty-five dollars (25) dollars can be allowed out of the public funds for local expenses. The new law requires the expense account to be approved by the Agricultural Commission before certificate will be issued to the county auditor.

INSTRUCTIONS TO FARMER INSTITUTE OFFICERS.

- FIRST**—Make good program. **DO NOT CROWD IT.** Secure at least two home people to discuss topics presented by lecturers.
- SECOND**—Advertise your meeting. Have it announced in all newspapers. Newspapers in your county will publish a few lines if your secretary will write and send same to the editors. At small expense, postcards can be sent to 500 farmers. Have teachers announce it.
- THIRD**—Provide a good hall. Make sure that heat and light are good. Have hall thoroughly cleaned and in good condition. Decoration—flags, bunting and pictures will invite success.
- FOURTH**—**BEGIN ON TIME.** Stop a state or local speaker when the time is up. Advise in your report whether or not state speakers arrive on time.
- FIFTH**—State speakers should talk before outside speakers. When the state sends these men to an institute, nothing should prevent them giving their talks.
- SIXTH**—Committees should be selected at first session of first day. Each committee should report at morning session of second day. Reports should not be voted upon until afternoon of last day. The president should take full charge of meeting and see that it is conducted in an orderly and business-like manner. His best judgment should be his guide in allowing general discussions.
- SEVENTH**—Complaint in one or two instances that the president has appointed nominating committees which are sure to perpetuate officers in office. To avoid such an impression the president should be careful.
- EIGHTH**—President and other institute officers should arrange to hold a conference with state speakers before institute opens. Good may be accomplished if president, secretary and state speakers would confer frequently.
- NINTH**—The president should have strong voice and make himself heard. He should have courage to enforce any ruling he may make, in keeping order and directing discussions.
- TENTH**—The president, secretary and executive committee should pass upon all bills of expense incident to the conduct of the institute, and only such items of expense should be allowed out of the state allowance of twenty-five (25) dollars as per-

tain strictly to the encouragement of agriculture. The expenditure of state money for entertainment purposes to the neglect of essential things is not the spirit of the law, and county auditors will be so advised. Local entertainment features, if such are had, should be provided for by local contributions.

ELEVENTH—There is no law for admission charge to the evening session at which the state speakers lecture.

TWELFTH—The secretary should make full report of institute and give short synopsis of each topic discussed, and furnish same to county newspapers, so that the most good may be accomplished and the indifferent, stay-at-home farmer be reached.

THIRTEENTH—Institute officers have a right to expect full performance of the work assigned to state speakers by the Commission. State speakers should receive all courtesies due them, and their comfort and convenience must not be neglected.

FOURTEENTH—The secretary or assistant should be present at all sessions. The report blank should be made out in full, signed and approved by the president, secretary and majority of the executive committee. Failure to do so will cause withholding the state certificate for expense voucher.

FIFTEENTH—The secretary should send by registered mail or special delivery a copy of all resolutions adopted by the institute to the state senator and county representative in the legislature, and ask such member of the legislature for an acknowledgment of the receipt of the resolutions.

SIXTEENTH—Mention in report whether personal appearance of the state speakers was good, whether they encouraged discussions and questions, and if they treated the person asking the questions courteously.

SEVENTEENTH—Ask county papers to publish your program at least one week previous to your meeting. The state speakers are authorized and instructed to call attention of institute officers to any infringement of the law or improper conduct.

EIGHTEENTH—Make the institute a thorough business proposition. Read every section of the Farmer Institute law. Answer fully every question on official application and report blanks.

NINETEENTH—The Commission permits the agricultural supervisor of your part of Ohio to appear upon the program. They should be invited by the institute officers.

TWENTIETH—The school board, teachers and pupils should be invited to attend the first session and special talks will be given by state speakers.

TWENTY-FIRST—Do not permit on your program speakers who want to crowd themselves in. Special “hobbies” often destroy the harmony and interest of the institute.

TWENTY-SECOND—Any extra speakers, not regularly on the program must, if permitted at all, appear after state speakers have had their time. This rule must be observed.

TWENTY-THIRD—Corn shows, poultry, baking, sewing and other contests should be encouraged, but they should be in a separate room from the institute and the officers of the institute should close up the exhibit while the institute is in session.

TWENTY-FOURTH—The local officers should raise some money, and prizes should be offered to boys and girls, men and women, for products and skill in some profitable contest.

TWENTY-FIFTH—The state desires to reach all portions of every county and will consider any application for an institute no matter from what part of the county it is received. The place that has had an institute at state expense for several years should be willing to hold an independent meeting.

N. B.—The state will not pay over twenty-five (25) dollars for local expenses this year.

Read the rules carefully.

SPECIAL SUGGESTIONS.

Admission may be charged second night of the Institute after the regular state speakers are gone.

Special evening lectures may be put on program if local committee desires to stand the expense of same. A splendid list of speakers for special talks will be furnished by the Commission, upon request.

Many independent institutes can be held at small expense if the right effort is made.

If the institute votes to request the Agricultural Commission to make an orchard demonstration of pruning and spraying, in its community, an effort will be made to grant same.

Mrs. Josephine Nesbitt, is a splendid field worker, in the cause of civic improvement, in the employ of the Commission. She can be had with stereopticon views in a limited number of places. Application should be made early.

Those persons who are not now enrolled on our mailing list should request the institute secretary to send in their name and address.

Farmer institutes ought to vote to hold a summer picnic. The institute ought to live during the whole year. A summer day meeting could be held at small expense and good speakers upon live issues could easily be secured.

The hired men, the boys, the girls, the editor, the preacher, the teacher, the business man, and the ladies ought to have a special invitation to attend the institute.

Encores should not be permitted at evening or other sessions. If musicians are not on time proceed with the program. Do not permit any person to steal valuable time. State speakers have instructions not to speak over thirty minutes on any topic during the day and forty minutes at evening session.

See that report blanks and itemized expense accounts are made out accurately and promptly. Let all affairs of the institute be attended to in a thorough business-like manner.

The institutes this season will be better than ever before.

THE ROUND TABLE AT FARMERS' INSTITUTES, 1913-14.

Twenty minutes should be given at each session for a discussion of at least two of the following Round Table topics:

1. The Agricultural Commission.
2. Cost and Benefits of the Agricultural College Courses.
3. The Farmer's Profit from the Experiment Station—Wooster.
4. The Poisoning and Pollution of Running Streams.
5. Beautifying Homes, School Houses and Churches.
6. Do Country School Train Boys and Girls for Farm Life?
7. Which is better on the farm—bath tub or automobile?
8. Does Speculation help to Fix Farm Prices?
9. How can Consumer buy Direct from Producer?
10. Do Farmers Investigate Markets as much as They Ought?
11. Do Mothers teach Daughters thorough Housekeeping?
12. Does any Farmer farm as well as he knows how to Farm?
13. Does any Farmer know how much he has invested in the farm?
14. Should the Renter and Hired Man attend the Institute?
15. Is the Renter or Retired Farmer the least interested in the Welfare of a community?
16. Who has the best kept Farm Home in the Community?
17. Are Teachers and Preachers Practical in their work?
18. Should the Agricultural Commission provide a Pruning and Spraying Demonstration in this Community?
19. Do Housewives favor the Teaching of Domestic Science?
20. Why Do Many Farmers neglect to paint Buildings?
21. Why do Some Farmers permit Weeds to grow in Road and Fence Row?
22. Do Farmers make use of Parcels Post Service?
23. In What way can County Fairs be Improved?
24. Can Hog Cholera be Driven out of Ohio?
25. Is it a Disgrace to Keep a "Scrub" animal on the Farm?

26. Is there such a thing as Farm Arithmetic?
27. Do Bad Roads cost more than Good Roads?
28. Is it the fault of Husband or Wife if the Home is not Sanitary?
29. Should the School House be Made a Meeting Place for the Community at least once each Month?
30. Are Business Men as Sociable With Farmers as They ought to be?
31. What Does This Community Need Most?
32. Is the State of Ohio Doing too Much or too Little for Agriculture?
33. Shall this Community Encourage Boys and Girls to enter Contests for prizes and Free Trips?
34. Why do Farmers often Oppose a County Experiment Farm Before it is established and Favor it so Strongly after They Learn Its Benefits and Helpfulness?
35. Why do Some Farmers waste their labor and profits by planting poor seed?
36. What is the strongest Influence that Keeps the Boys on the Farm today? What is the strongest Influence that takes them off the Farm?
37. Will Alfalfa or Corn be King of Ohio?

In Round Table Discussion no person should talk more than three minutes. Short and to the point should be the rule.

A Round Table Committee can be appointed to pick out topics from above and announce in advance what topics will be taken up at the next session.

As a rule newspapers will publish a list of Round Table topics if they are furnished a copy of same.

All of above topics should be advertised and none of them selected until the Institute is actually in session, for discussion. Where possible they should be printed in the regular institute program. These topics will help to get a good attendance.

The president of the Institute should be strong enough to control and shut off discussion of these topics.

FINANCIAL STATEMENT.

The following is statement of per diem and expenses of farmers' institute lecturers, season 1913-'14. Through courtesy of the Experiment Station, corps of the station's lecturers was placed at our service, which accounts for the fact that no per diem is charged to these lecturers. During 1913 session of the legislature, farmer institute law was amended so as to permit holding of five institutes in each county instead of four, thus increasing total cost over that of the 1912-'13 season:

	Per Diem.	Expenses.	Total.
Allen, F. L., Burton, $\frac{1}{2}$ week.....		\$27 88	\$27 88
Anderson, Dr. Mary E., Clinton, 8 $\frac{1}{2}$ weeks.....	\$285 00	210 37	475 37
Baldwin, S. J., Tallmadge, $\frac{1}{2}$ weeks.....	264 00	145 40	409 40
Begg, John, Columbus Grove, 12 $\frac{1}{2}$ weeks.....	518 00	199 29	717 29
Blackford, Frank, Eldorado, 11 $\frac{1}{2}$ weeks.....	476 00	221 50	697 50
Bowsher, H. D., Hume, 3 $\frac{1}{2}$ weeks.....	95 00	63 23	158 23
Brenneman, E. A., Camp Chase, 7 $\frac{1}{2}$ weeks.....	276 00	162 23	438 23
Brigham, J. S., Bowling Green, 10 $\frac{1}{2}$ weeks.....	443 00	195 20	643 20
Buchanan, J. L., Sherodsville, 11 $\frac{1}{2}$ weeks.....	420 00	201 85	621 85
Bugby, M. O., Wooster, 2 $\frac{1}{2}$ weeks.....		37 25	37 25
Burkholder, H., Clyde, 4 $\frac{1}{2}$ weeks.....	130 00	81 05	211 05
Burlingame, S. W., Caldwell, 5 weeks.....	150 00	104 37	254 37
Carmichael, B. A., Wooster, $\frac{1}{2}$ week.....		22 35	22 35
Coffey, Geo. N., Wooster, 2 weeks.....		37 28	37 28
Copeland, W. F., Athens, 2 weeks.....	66 00	47 50	113 50
Dobbins, O. A., Cedarville, 4 $\frac{1}{2}$ weeks.....	163 00	92 93	260 93
Dunham, D. E., Lebanon, 2 $\frac{1}{2}$ weeks.....	65 00	46 10	111 10
Eastwood, Geo. E., Wooster, 1 week.....		25 40	25 40
Elliott, C. W., Mt. Healthy, 3 weeks.....	90 00	58 20	148 20
Elliott, W. P., Athens, 3 $\frac{1}{2}$ weeks.....	110 00	69 20	179 20
Durbin, Ida A., Fredericktown, 8 weeks.....	240 00	247 54	487 54
Dorsey, Pearl, Moundsville, W. Va., 7 $\frac{1}{2}$ weeks.....	220 00	167 50	387 50
Funk, C. P., Wooster, 5 $\frac{1}{2}$ weeks.....	160 00	110 37	270 37
Galehouse, D. W., Wooster, 1 $\frac{1}{2}$ weeks.....		42 45	42 45
Goodwin, W. H., Wooster, 1 $\frac{1}{2}$ weeks.....		40 16	40 16
Gordon, J. F., Columbus, 12 weeks.....	490 00	187 29	677 29
Gossard, H. A., Wooster, 1 $\frac{1}{2}$ weeks.....		50 34	50 34
Green, C. F., Pataskala, 5 $\frac{1}{2}$ weeks.....	160 00	77 43	237 43
Hayden, C. C., Wooster, $\frac{1}{2}$ week.....		12 80	12 80
Hayne, R. A., Adena, 7 $\frac{1}{2}$ weeks.....	315 00	178 35	493 35
Hammond, J. W., Wooster, 3 weeks.....		63 08	63 08
Harsh, D. D., Minerva, 7 weeks.....	252 00	167 75	419 75
Herrick, Austin, Twinsburg, 5 $\frac{1}{2}$ weeks.....	160 00	117 81	277 81
High, A. F., New Washington, 1 $\frac{1}{2}$ weeks.....	40 00	27 45	67 45
Hoddy, E. J., Linden Heights, 6 $\frac{1}{2}$ weeks.....	209 00	142 90	351 90
Houskeeper, G. C., Bowling Green, 11 $\frac{1}{2}$ weeks.....	442 00	178 60	620 60
Hummon, J. A., Leipsic, 8 $\frac{1}{2}$ weeks.....	286 00	141 78	427 78
Houser, J. S., Wooster, 2 $\frac{1}{2}$ weeks.....		59 71	59 71
Hudson, J. F., Ravenna, 6 $\frac{1}{2}$ weeks.....	260 00	162 44	422 44
Kibler, T. B., Rawson, 1 $\frac{1}{2}$ weeks.....	50 00	38 45	88 45
Kniskely, P. C., New Philadelphia, 3 $\frac{1}{2}$ weeks.....	110 00	77 15	187 15
Laws, Christine D., Cleveland, 8 weeks.....	240 00	302 70	542 70
Markley, Horatio, Mt. Gilead, 10 $\frac{1}{2}$ weeks.....	418 00	186 60	602 90
Martindale, E. C., Wilkinson, Ind., 4 $\frac{1}{2}$ weeks.....	198 00	106 94	302 94
Matheny, W. A., Athens, 1 $\frac{1}{2}$ weeks.....	45 00	51 45	96 45
Miller, H. F., Ravenna, 1 $\frac{1}{2}$ weeks.....		25 25	25 25
Montgomery, C. W., Newark, 5 $\frac{1}{2}$ weeks.....		114 05	114 05
Moore, S. W., Gallipolis Ferry, W. Va., 3 weeks.....	126 00	74 80	200 80
Nicodemus, J. W., Van Wert, 10 $\frac{1}{2}$ weeks.....	409 50	191 20	600 70
Plotner, Inez, West Mansfield, 8 $\frac{1}{2}$ weeks.....	250 00	270 74	520 74
Riedinger, Laura R., Alliance, 6 $\frac{1}{2}$ weeks.....	205 00	164 56	369 56
Riggs, E. J., Columbus, 2 weeks.....		28 95	28 95
Robertson, R. R., Norwalk, 5 weeks.....	150 00	90 80	240 80
Scott, Geo. E., Mt. Pleasant, 9 weeks.....	324 00	199 90	523 90
Smith, Bert, Delaware, 9 $\frac{1}{2}$ weeks.....	348 00	167 46	515 46
Spencer, L. G., Niles, 6 $\frac{1}{2}$ weeks.....	220 00	104 20	324 20
Thayer, Paul, Wooster, 1 week.....		15 40	15 40
Thomas, M. C., Mingo, 1 week.....	39 00	30 60	69 60
Tuttle, H. F., Wooster, 2 weeks.....		43 40	43 40
Tressler, M. L., Montpelier, 6 $\frac{1}{2}$ weeks.....	220 00	167 93	387 93
Wagner, C. R., Arlington, 12 $\frac{1}{2}$ weeks.....	532 00	303 91	835 91
Miscellaneous			25 00
Totals	\$10,655 60	\$6,981 36	\$17,661 86

FARMERS' INSTITUTES, 1913-1914.

Places, Dates, Speakers, Attendance and Local Expense.

NOTE—Not to exceed \$25 paid by state on local expenses, balance paid by local societies.

County.	Town and Date.	Speakers.	Average Attendance Each Session.	Local Expense.
Adams.....	Seaman	Gordon, C. W. Elliott.....	211	\$18 35
	December 1-2.			
	Manchester	Burlingame, Funk	80	19 00
	Dec. 31-Jan. 1.			
	Peebles	Copeland, Hummon	229	31 70
	January 2-3.			
	Wamsley	Brigham, Hayne	92	25 00
West Union	January 5-6.			
	Blackford, Buchanan, Miss Plotner...	80	9 00	
	January 12-13.			
	County average	138	\$20 61	
Allen.....	Delphos	Funk, Smith, Durbin.....	495	\$54 07
	February 9-10.			
	Harrod	Markley, Tressler	385	35 00
	February 9-10.			
	Lafayette	Martindale, Blackford	211	32 00
	February 25-26.			
Beaverdam	Brigham, Harsh	262	25 38	
	March 2-3.			
	County average	338	\$36 61	
Ashland.....	Jeromesville	Burkholder, Smith, Mrs. Riedinger....	220	\$33 25
	December 15-16.			
	Ashland	Nicodemus, Herrick, Mrs. Durbin....	366	25 00
	December 29-30.			
	Nova	Wagner, Brenneman, Mrs. Anderson..	550	28 29
	January 19-20.			
	Loudonville	Gordon, Bowsher	455	60 00
Savannah	January 21-22.			
	Houskeeper, Funk, Miss Dorsey.....	311	17 91	
	January 26-27.			
	County average	380	\$32 89	
Ashtabula.....	Rock Creek	Miller, Blackford	122	\$25 00
	Dec. 31-Jan. 1.			
	Geneva	Miller, Blackford	130	24 50
	January 2-3.			
	Lindenville	Buchanan, Montgomery	332	15 50
	January 28-29.			
	Pierpont	Nicodemus, Smith	250	23 10
Williamsfield	January 30-31.			
	Gordon, Hawthorne, Miss Dorsey.....	191	70 65	
	January 30-31.			
	County average	205	\$31 75	
Athens.....	Guysville	Markley, Scott, Mrs. Durbin.....	185	\$10 30
	December 3-4.			
	Athens	Blackford, Markley	120	10 00
	December 10-11.			
	Amesville	Begg, Riggs, Mrs. Anderson.....	154	25 00
	December 12-13.			
	Coolville	Wagner, Houser	83	25 50
Albany	December 22-23.			
	Buchanan, Green	144	25 35	
	December 29-30.			
County average	137	\$19 23		
Auglaize.....	New Bremen	Hudson, Scott	192	\$25 00
	January 30-31.			
	Cridersville	Brenneman, Blackford	223	23 00
	January 30-31.			
	Buckland	Houskeeper, Eastwood	115	25 00
	February 6-7.			
Unioopolis	Brigham, Hummon	410	45 00	
	February 11-12.			
	County average	235	\$29 50	
Belmont.....	Colerain	Moore, Nicodemus, Miss Dorsey.....	194	\$32 30
	December 8-9.			
	Centerville	Moore, Nicodemus	122	37 25
	December 10-11.			
	Chestnut Level	Buchanan, Elliott, Miss Dorsey.....	94	13 25
	December 12-13.			
	Somerton	Spencer, Burlingame	136	26 35
County average	136	\$27 29		

FARMERS' INSTITUTES—1913-1914—Continued.

County.	Town and Date.	Speakers.	Average Attendance Each Session.	Local Expense.
Brown.....	Fayetteville	Gordon, Elliott, Mrs. Laws.....	175	\$25 00
	December 3-4.			
	Ripley	Hayne, Riggs	234	30 00
	December 3-4.			
	Hamersville	Hayne, Riggs	224	27 00
	December 5-6.			
Decatur .....	.....	Martindale, Tressler	306	25 00
	December 17-18.			
	County average		235	\$26 75
Butler.....	Trenton	Harsh, Smith	195	\$25 00
	December 29-30.			
	Oxford	Begg, Gossard	245	28 38
	January 12-13.			
	Monroe	Houskeeper, Hudson	250	25 00
	February 20-21.			
	Hamilton	Hoddy, Wagner, Mrs. Laws.....	182	25 00
	December 10-11.			
Okana .....	.....	Martindale, Brenneman, Mrs. Laws... 345		26 55
	December 12-13.			
	County average		243	\$25 98
Carroll.....	Sherodsville	Gordon, Thomas	240	\$25 00
	February 9-10.			
	Carrollton	Houskeeper, Burlingame	187	24 40
	January 5-6.			
	Harlem Springs	Spencer, Hoddy, Mrs. Riedinger..... 201		29 11
	December 19-20.			
	Magnolia	Carmichael, Knisely, Mrs. Durbin... 150		25 40
	January 5-6.			
Petersburg .....	.....	Scott, Nicodemus, Mrs. Riedinger.... 140		14 00
	December 17-18.			
	County average		184	\$23 58
Champaign.....	Kingscreek	Begg, Galehouse	187	\$27 00
	December 26-27.			
	Mingo	Montgomery, Hudson	154	30 00
	February 4-5.			
	Springhill	Hummon, Marsh	205	26 50
	January 28-29.			
	Woodstock	Brigham, Tressler, Mrs. Riedinger... 360		21 66
	February 16-17.			
Westville .....	.....	Begg, Coffey, Miss Plotner..... 210		25 55
	December 29-30.			
	County average		223	\$26 14
Clark.....	North Hampton	Dunham, Montgomery	308	\$69 90
	February 6-7.			
	New Carlisle	Scott, Hudson	155	22 50
	January 30-31.			
	Catawba	Robertson, Tressler	118	25 00
	January 12-13.			
	Donnelsville	Harsh, Hummon, Mrs. Anderson.... 275		75 70
	January 30-31.			
Selma .....	.....	Brigham, Green	150	45 00
	December 15-16.			
	County average		201	\$47 62
Clermont.....	Williamsburg	Gordon, C. W. Elliott..... 245		\$25 00
	December 5-6.			
	New Richmond	Hayne, Riggs	104	12 50
	December 1-2.			
	Bethel	Burkholder, Tressler	365	18 50
	January 7-8.			
	Milford	Burkholder, Tressler	348	45 18
	January 9-10.			
Laurel .....	.....	Martindale, Tressler	231	46 40
	December 15-16.			
	County average		258	\$29 52
Clinton.....	Blanchester	Elliott, Gordon, Mrs. Laws..... 260		\$65 00
	December 8-9.			
	New Vienna	Tressler, Brigham, Mrs. Riedinger... 510		27 30
	February 20-21.			
	Port William	Begg, Coffey	147	25 00
	January 3-4.			
	Westboro	Burkholder, Tressler, Mrs. Laws.... 272		36 50
	January 5-6.			
Kingman .....	.....	Matheny, Tuttle	240	40 50
	Dec. 31-Jan. 1.			
	County average		286	\$38 86

FARMERS' INSTITUTES—1913-1914—Continued.

County.	Town and Date.	Speakers.	Average Attendance Each Session.	Local Expense.
Columbiana.....	East Palestine	Harsh, Smith, Mrs. Riedinger.....	258	\$53 00
	January 23-24.			
	Damascus	Gordon, Hoddy, Mrs. Durbin.....	640	25 50
	February 6-7.			
	Moultrie	Markley, Spencer, Mrs. Anderson....	302	30 00
	January 26-27.			
Columbiana	West Point	Spencer, Hoddy, Mrs. Durbin.....	175	24 92
	December 17-18.			
	Columbiana	Buchanan, Dobbins	332	79 75
	January 21-22.			
	County average		341	\$42 63
Coshocton.....	Blissfield	Baldwin, Burkholder, Miss Plotner...	228	\$18 07
	January 16-17.			
	Tiverton	Hayne, Blackford	205	26 75
	December 15-16.			
	Perry Grange Hall.....	Wagner, Houser	140	20 95
	January 30-31.			
	Walhonding	Wagner, Thayer, Mrs. Anderson.....	256	44 50
	February 2-3.			
Coshocton.....	Bethlehem Grange Hall....	Buchanan, Blackford, Mrs. Durbin....	164	25 00
	January 16-17.			
	County average		198	\$27 05
Crawford.....	Bucyrus	Houskeeper, Funk	600	\$90 10
	January 28-29.			
	New Washington	Gordon, Bowsher	420	25 00
	January 7-8.			
	Crestline	Begg, Crumley, Miss Dorsey.....	500	55 00
	January 23-24.			
Crawford.....	Tiro	Thomas, Buchanan	229	25 00
	February 11-12.			
	County average		437	\$48 77
Cuyahoga.....	Bedford	Begg, Montgomery	170	\$22 00
	February 9-10.			
	Strongsville	Wagner, Brenneman, Mrs. Riedinger..	310	33 70
	January 21-22.			
	Olmstead Falls	Hudson, Matheny	153	42 50
	December 22-23.			
	Mayfield	Wagner, Brenneman, Mrs. Laws.....	300	25 20
	January 23-24.			
Cuyahoga.....	Brecksville	Markley, Spencer, Mrs. Riedinger....	200	25 00
	January 28-29.			
	County average		227	\$29 63
Darke.....	New Madison	Meeker, Wagner, Miss Plotner.....	350	\$42 50
	February 16-17.			
	Ansonia	Wagner, Galehouse, Miss Plotner....	100	13 00
	Dec. 31-Jan. 1.			
	Versailles	Scott, Hudson, Miss Plotner.....	395	63 00
	January 28-29.			
	Gettysburg	Nicodemus, Hummon	445	30 00
	February 4-5.			
Darke.....	Lightsville	Montgomery, Hammond, Miss Plotner..	220	34 00
	January 23-24.			
	County average		304	\$36 50
Defiance.....	Defiance	Brigham, Hummon, Miss Plotner....	393	\$28 95
	February 9-10.			
	Ney	Herrick, Hummon	170	22 00
	December 26-27.			
	Sherwood	Hoddy, Smith	288	25 00
	February 16-17.			
	Hicksville	Smith, Harsh	78	21 93
	January 12-13.			
	County average		232	\$24 47
Delaware.....	Peachblow	Blackford, Gordon, Miss Plotner....	124	\$23 08
	February 16-17.			
	Sunbury	Baldwin, Higgins, Mrs. Anderson....	280	25 00
	December 10-11.			
	Ostrander	Markley, Coffey, Mrs. Durbin.....	349	24 93
	February 2-3.			
Delaware	Delaware	Hayne, Buchanan	271	40 00
	February 6-7.			
	County average		256	\$28 25

FARMERS' INSTITUTES—1913-1914—Continued.

County.	Town and Date.	Speakers.	Average Attendance Each Session.	Local Expense.
Erie.....	Perkins	Nicodemus, Hummon	200	\$25 00
	January 19-20.			
	Castalia	Scott, Tressler, Miss Plotner.....	168	25 00
	February 4-5.			
	Berlin Heights	Scott, Tressler, Miss Plotner.....	285	30 00
	February 2-3.			
	Milan	Buchanan, Dunham, Mrs. Anderson...	260	25 00
	February 16-17.			
	County average		228	\$26 25
Fairfield.....	Amanda	Wagner, Bowsher, Miss Dorsey.....	266	\$25 00
	December 17-18.			
	Rushville	Hoddy, Hayne, Miss Dorsey.....	247	50 00
	December 29-30.			
	Carroll	Brigham, Brenneman, Mrs. Anderson.	423	58 85
	January 16-17.			
	New Salem	Begg, Elliott, Miss Dorsey.....	202	25 00
	December 17-18.			
Bremen	Brigham, Green	229	64 85	
	December 22-23.			
	County average		273	\$44 74
Fayette.....	Jeffersonville	Scott, Tressler, Mrs. Anderson.....	270	\$24 85
	January 16-17.			
	Bloomingsburg	Dunham, Brenneman	131	25 00
	December 22-23.			
	Moons	Funk, Burlingame	196	41 00
	December 29-30.			
	County average		199	\$30 28
Franklin.....	New Albany	Wagner, Gossard, Mrs. Durbin.....	171	\$20 77
	February 23-24.			
	Pleasant Corners	Brigham, Harsh, Miss Plotner.....	164	32 77
	February 25-26.			
	Alton	Montgomery, Hudson, Mrs. Durbin...	175	21 42
	January 12-13.			
	Groveport	Hudson, Hayne	242	42 90
	Dec. 31-Jan. 1.			
Hilliards	Wagner, Hoddy, Mrs. Anderson.....	234	16 85	
	December 12-13.			
	County average		197	\$26 84
Fulton.....	Archbold	Baldwin, Harsh	223	\$25 00
	December 15-16.			
	Wauseon	Harsh, Scott	175	8 50
	February 11-12.			
	Delta	Buchanan, Scott, Mrs. Riedinger.....	368	38 00
	February 25-26.			
	Metamora	Scott, Harsh	250	30 00
	February 9-10.			
Fayette	Brigham, Blackford, Miss Plotner....	466	58 05	
	February 4-5.			
	County average		296	\$31 91
Gallia.....	Fairfield Church	Blackford, Burlingame	134	\$18 25
	(Green Twp.)			
	December 3-4.			
	Walnut M. E. Church.....	Buchanan, Green	188	19 00
	January 2-3.			
Vinton	Begg, Elliott, Mrs. Durbin.....	280	25 00	
	December 5-6.			
	County average		200	\$20 75
Geauga.....	Burton	Miller, Blackford, Mrs. Laws.....	120	\$25 00
	December 29-30.			
	Chesterland	Funk, Smith, Miss Dorsey.....	207	32 69
	February 4-5.			
	Montville	Smith, Nicodemus	210	28 67
	January 28-29.			
	Chardon	Begg, Montgomery	110	15 00
	February 11-12.			
Thompson	Smith, Burkholder	235	25 45	
	December 19-20.			
	County average		176	\$25 36
Greene.....	Jamestown	Houskeeper, Hummon	345	\$47 15
	February 16-17.			
	Spring Valley	Brigham, Tressler, Mrs. Riedinger....	424	25 00
	February 18-19.			
	New Burlington	Blackford, Hudson	329	40 00
	February 9-10.			
	Bellbrook	Brigham, Green	225	26 00
	December 17-18.			
Cedarville	Begg, Coffey, Miss Plotner.....	227	36 00	
	Dec. 31-Jan. 1.			
	County average		310	\$34 33

FARMERS' INSTITUTES—1913-1914—Continued.

County.	Town and Date.	Speakers.	Average Attendance Each Session.	Local Expense.
Guernsey.....	Byesville	Houskeeper, Spencer	68	\$25 00
	December 29-30.			
	Antrim	Blackford, Hayne, Mrs. Riedinger....	242	22 00
	December 19-20.			
	Kimbolton	Spencer, Hawthorne, Mrs. Durbin....	167	25 00
	January 12-13.			
	Fairview	Robertson, Markley, Miss Dorsey....	189	45 00
Pleasant City	January 7-8.			
	Pleasant City	Markley, Elliott, Mrs. Durbin.....	239	25 00
	December 17-18.			
	County average		181	\$28 40
Hamilton.....	New Haven	Nicodemus, Hummon	234	\$26 25
	February 6-7.			
	Newtown	Burlingame, Funk	134	23 54
	January 2-3.			
	Harrison	Smith, Harsh	147	25 00
	January 2-3.			
	Miami	Baldwin, Dobbins	416	45 50
Springdale	January 9-10.			
	Springdale	Smith, Harsh	116	30 00
	Dec. 31-Jan. 1.			
	County average		249	\$30 06
Hancock.....	Mt. Cory	Brigham, Harsh	245	\$25 00
	January 26-27.			
	Van Buren	Baldwin, Herrick, Mrs. Riedinger....	190	39 50
	February 9-10.			
	Vanlue	Houskeeper, Hummon, Miss Plotner..	376	66 75
	February 2-3.			
	Jenera	Herrick, Martindale	245	45 41
McComb	January 23-24.			
	McComb	Begg, Smith	420	58 00
	January 5-6.			
Hardin.....	County average		295	\$46 93
	Dunkirk	Scott, Brigham, Miss Dorsey.....	252	\$42 00
	January 23-24.			
	Roundhead	Begg, Brenneman	257	20 50
	February 25-26.			
	Forest	Blackford, Knisely	485	138 80
Kenton	January 28-29.			
	Kenton	Gordon, Burlingame	75	25 15
	January 12-13.			
	Ada	Begg, Crumley, Miss Dorsey.....	445	19 21
	January 19-20.			
Harrison.....	County average		303	\$49 13
	Piedmont	Markley, Hoddy	177	\$34 55
	January 12-13.			
	Jewett	Buchanan, Elliott, Miss Dorsey.....	219	27 00
	December 8-9.			
	Cassville	Burlingame, Spencer	74	19 00
New Rumley	December 22-23.			
	New Rumley	Spencer, Houskeeper	142	18 05
	Dec. 31-Jan. 1.			
	Bowerston	Nicodemus, Moore, Miss Dorsey.....	286	24 00
	December 12-13.			
Henry.....	County average		180	\$24 52
	Liberty Center.....	Brigham, Blackford, Miss Plotner....	141	\$25 00
	February 6-7.			
	Deshler	Begg, Smith, Mrs. Anderson.....	328	38 00
	January 7-8.			
	McClure	Hoddy, Smith, Mrs. Anderson.....	193	24 85
Hamler	February 20-21.			
	Hamler	Baldwin, Nicodemus	154	24 00
	February 16-17.			
	Sharon Church	Montgomery, Hammond, Miss Dorsey..	162	31 80
	January 19-20.			
Highland.....	County average		196	\$28 73
	Sugartree Ridge	Gordon, Elliott, Mrs. Laws.....	200	\$32 50
	December 10-11.			
	Rainsboro	Martindale, Tressler	164	50 00
	December 19-20.			
	Leesburg	Tuttle, Dunham	300	28 00
Lynchburg	January 2-3.			
	Lynchburg	Copeland, Hummon, Miss Dorsey....	370	42 55
	Dec. 31-Jan. 1.			
	Sinking Springs	Brigham, Robertson, Miss Dorsey	351	67 27
	Dec. 31-Jan. 1.			
County average			277	\$44 06

FARMERS' INSTITUTES—1913-1914—Continued.

County.	Town and Date.	Speakers.	Average Attendance Each Session.	Local Expense.
Hocking.....	Logan	Wagner, Bowsheer, Miss Dorsey.....	219	\$21 50
	December 19-20.			
	Laurelville	Brigham, Hayne	252	33 95
	January 9-10.			
	County average		235	\$27 72
Holmes.....	Glenmont	Begg, Houser, Miss Dorsey.....	470	\$95 00
	January 28-29.			
	Mt. Hope	Buchanan, Hayne, Mrs. Durbin.....	227	20 45
	February 2-3.			
	Holmesville	Spencer, Funk, Mrs. Laws.....	226	40 00
	January 19-20.			
	Berlin	Markley, Bugby	230	24 65
	January 23-24.			
	Killbuck	Buchanan, Scott	348	25 00
	County average		300	\$41 02
Huron.....	North Fairfield	Begg, Montgomery	252	\$25 00
	February 13-14.			
	Wakeman	Brigham, Dobbins, Mrs. Laws.....	269	25 21
	January 30-31.			
	Greenville	Moore, High, Mrs. Anderson.....	260	40 00
	December 5-6.			
	Townsend	Nicodemus, Hummon	340	37 35
	January 23-24.			
	Olena	Houskeeper, Blackford, Mrs. Anderson	220	25 00
	January 21-22.			
	County average		268	\$30 51
Jackson.....	Oak Hill	Robertson, Houskeeper, Dorsey.....	258	\$25 00
	December 19-20.			
	Valley Grange Hall.....	Begg, Elliott	139	22 00
	December 3-4.			
	Leo	Buchanan, Green	76	14 58
	January 7-8.			
	Jackson	Brenneman, Brigham, Miss Plotner...	84	4 00
	January 12-13.			
	Cove	Gordon, Kibler, Mrs. Laws.....	320	25 00
	December 15-16.			
	County average		175	\$18 12
Jefferson.....	Adena	Markley, Hoddy	225	\$40 00
	January 16-17.			
	Smithfield	Buchanan, Elliott, Miss Dorsey.....	200	101 48
	December 10-11.			
	Richmond	Markley, Bugby, Mrs. Durbin.....	460	240 00
	January 19-20.			
	Bloomington	Nicodemus, Markley	186	40 00
	December 22-23.			
	Mt. Pleasant	Houskeeper, Spencer	110	45 25
	January 2-3.			
	County average		236	\$93 34
Knox.....	Fredericktown	Buchanan, Hayne, Mrs. Anderson....	164	\$17 00
	February 4-5.			
	Esto	Moore, High, Mrs. Anderson.....	202	35 00
	December 1-2.			
	Levering	Gordon, Dobbins, Miss Plotner.....	270	25 00
	January 3-4.			
	Democracy	Baldwin, Burkholder	186	14 48
	December 29-30.			
	Grove Church (Gambler).....	Spencer, Hawthorne, Miss Plotner....	196	23 50
	January 16-17.			
	County average		204	\$23 00
Lake.....	Perry	Moore, Knisely, Mrs. Durbin.....	186	\$36 50
	County average		186	\$36 50
Lawrence.....	Hanging Rock	Kibler, Gordon	143	\$48 50
	December 19-20.			
	Waterloo	Houskeeper, Hayne	224	26 50
	December 10-11.			
	Pomaria Grange Hall.....	Buchanan, Green	170	25 00
	(Proctorville.)			
	January 5-6.			
	Sugar Creek	Burlingame, Blackford	88	24 89
	December 1-2.			
	Delta M. E. Church.....	Hayne, Houskeeper	109	14 35
	(South Point.)			
	December 12-13.	County average	147	\$27 85

FARMERS' INSTITUTES—1913-1914—Continued.

County.	Town and Date.	Speakers.	Average Attendance Each Session.	Local Expense.
Licking.....	Vanatta	Gordon, Dobbins, Mrs. Riedinger.....	230	\$26 63
	Dec. 31-Jan. 1.			
	Pataskala	Wagner, Houser	101	70 50
	December 26-27.			
	Brownsville	Hayne, Allen	150	25 00
	December 26-27.			
	Alexandria	Scott, Brigham, Mrs. Anderson.....	490	23 43
	January 19-20.			
	Franklin Twp. Grange Hall.	Markley, Treasler, Mrs. Riedinger....	191	25 00
	December 29-30.			
	County average		232	\$34 11
Logan.....	Belle Center	Blackford, Baldwin	326	\$29 25
	February 20-21.			
	West Liberty	Nicodemus, Houskeeper	393	25 00
	February 9-10.			
	East Liberty	Wagner, Hummon, Mrs. Durbin.....	244	18 30
	February 18-14.			
	West Mansfield	Baldwin, Higgins, Mrs. Anderson....	249	32 00
	December 8-9.			
	Quincy	Funk, Tuttle	237	35 00
	January 7-8.			
	County average		290	\$27 91
Lorain.....	Columbia Center	Scott, Brenneman	398	\$29 10
	January 7-8.			
	Kipton	Scott, Brenneman	294	59 20
	January 5-6.			
	Brownhelm	Wagner, Hayden, Mrs. Laws.....	195	73 15
	January 26-27.			
	Grafton	Houskeeper, Blackford, Mrs. Riedinger	225	25 00
	January 19-20.			
	Brighton	Baldwin, Harsh, Mrs. Anderson.....	230	25 00
	December 19-20.			
	County average		268	\$42 29
Lucas.....	Monclova	Buchanan, Dunham	195	\$35 40
	February 20-21.			
	Waterville	Brenneman, Begg, Mrs. Riedinger....	176	24 70
	February 23-24.			
	Richfield Center	Baldwin, Higgins	95	25 00
	December 12-13.			
	Berkey	Herrick, Hummon	169	25 00
	January 12-13.			
	County average		159	\$25 02
Madison.....	Mt. Sterling.....	Wagner, Meeker, Miss Plotner.....	155	\$46 70
	February 20-21.			
	Summerford	Montgomery, Hudson, Mrs. Anderson..	218	24 95
	January 9-10.			
	West Jefferson.....	Copeland, Nicodemus, Mrs. Laws.....	220	26 50
	January 12-13.			
	South Solon	Hudson, Montgomery	240	43 16
	February 2-3.			
	Plain City	Hummon, Dobbins	193	19 50
	January 26-27.			
	County average		205	\$32 16
Mahoning.....	Greenford	Gordon, Hoddy, Mrs. Durbin.....	215	\$20 75
	February 4-5.			
	North Jackson	Moore, Knisely, Mrs. Anderson.....	192	35 00
	December 17-18.			
	Canfield	Spencer, Hoddy, Mrs. Anderson.....	132	24 50
	December 15-16.			
	Berlin Center	Dobbins, Buchanan, Mrs. Riedinger...	208	28 55
	January 23-24.			
	Sebring	Markley, Spencer, Mrs. Riedinger.....	190	22 50
	January 30-31.			
	County average		187	\$26 26
Marion.....	Marion	Markley, Coffey, Mrs. Anderson.....	253	\$27 80
	February 4-5.			
	Waldo	Gordon, Blackford	297	25 00
	February 18-19.			
	Morral	Baldwin, Higgins	74	12 95
	December 26-27.			
	Agosta	Montgomery, Hudson, Mrs. Durbin....	293	34 27
	January 16-17.			
	Caledonia	Buchanan, Brenneman, Mrs. Riedinger	278	19 10
	February 9-10.			
	County average		239	\$23 82

FARMERS' INSTITUTES—1913-1914—Continued.

County.	Town and Date.	Speakers.	Average Attendance Each Session.	Local Expense.
Medina.....	Chatham January 26-27.	Gordon, Hawthorne, Miss Dorsey.....	320	\$25 10
	Brunswick January 21-22.	Hummon, Nicodemus, Mrs. Laws.....	190	14 72
	Sharon Church January 9-10.	Brenneman, Scott, Mrs. Durbin.....	172	19 05
	Remson Corners..... January 16-17.	Houskeeper, Robertson	207	30 68
	Poe February 6-7.	Begg, Funk	186	26 07
	County average		215	\$25 12
Meigs.....	Rutland December 15-16.	Houskeeper, Robertson, Mrs. Laws....	206	\$24 00
	Alfred December 17-18.	Houskeeper, Robertson, Mrs. Laws....	182	18 50
	Chester December 10-11.	Begg, Riggs, Mrs. Durbin.....	250	34 50
	Racine Dec. 31-Jan. 1.	Buchanan, Green, Mrs. Anderson....	162	25 00
	Burlingham December 8-9.	Begg, Riggs	66	16 25
	County average		173	\$23 65
Mercer.....	Chattanooga February 13-14.	Brigham, Houser	180	\$26 85
	Cassella January 9-10.	Wagner, Tuttle	136	25 00
	Wabash January 21-22.	Hudson, Green, Miss Plotner.....	203	18 45
	Neptune January 23-24.	Hudson, Green, Miss Plotner.....	294	34 75
	Montezuma December 26-27.	Nicodemus, Markley	123	21 75
	County average		187	\$25 36
Miami.....	Bradford February 27-28.	Martindale, Dobbins	420	\$51 00
	Casstown February 13-19.	Wagner, Meeker, Miss Plotner.....	252	49 79
	Covington February 11-12.	Nicodemus, Houskeeper, Mrs. Durbin.	530	25 00
	West Milton December 29-30.	Matheny, Tuttle, Miss Plotner.....	354	66 75
	County average		389	\$48 13
Monroe.....	Sardis January 5-6.	Nicodemus, Spencer	250	\$35 00
	Woodafield January 5-6.	Markley, Robertson	234	9 84
	Beallsville December 19-20.	Elliott, Markley, Mrs. Laws.....	145	17 50
	Barnhart School House..... December 19-20.	Scott, Nicodemus, Mrs. Laws.....	75	12 79
	Clarrington December 15-16.	Buchanan, Montgomery, Mrs. Durbin.	211	26 00
	County average		183	\$20 22
Montgomery....	Centerville January 5-6.	Dobbins, Baldwin	355	\$25 00
	Vandalia (Butler Twp. High School) February 13-14.	Houskeeper, Nicodemus, Mrs. Durbin.	140	54 09
	Beardshear Church December 8-9.	Brenneman, Martindale, Mrs. Anderson	138	25 00
	Germantown January 5-6.	Wagner, Tuttle	235	35 43
	New Lebanon January 16-17.	Begg, Gossard	385	50 30
	County average		251	\$37 96
Morgan.....	Mountville December 8-9.	Markley, Blackford	135	\$14 75
	Neelyville December 5-6.	Scott, Markley	122	23 20
	Reinersville Dec. 31-Jan. 1.	Brenneman, Hammond, Mrs. Anderson	199	22 52
	Triadelphia January 9-10.	Spencer, Nicodemus, Miss Dorsey....	187	29 80
	Pleasant Valley December 26-27.	Buchanan, Elliott	91	25 00
	County average		147	\$23 05

FARMERS' INSTITUTES—1913-1914—Continued.

County.	Town and Date.	Speakers.	Average Attendance Each Session.	Local Expense.
Morrow.....	Iberia	Scott, Brigham, Dorsey.....	168	\$23 42
	January 21-22.			
	Edison	Wagner, Gossard, Miss Plotner.....	377	58 58
	February 27-28.			
	West Point	Nicodemus, Copeland	213	46 40
	January 16-17.			
	Marengo	Baldwin, Burkholder, Mrs. Riedinger..	228	25 00
	Dec. 31-Jan. 1.			
	Westfield	Gordon, Bowsher	340	23 50
	January 19-20.			
	County average		265	\$35 38
Muskingum.....	Rix Mills	Brenneman, Hammond, Mrs. Riedinger.	243	\$24 97
	January 2-3.			
	Dresden	Wagner, Thayer, Mrs. Laws.....	197	34 03
	February 4-5.			
	Otsego	Robertson, Markley, Miss Dorsey.....	178	17 65
	January 9-10.			
	Bloomfield	Scbtt, Nicodemus, Miss Dorsey.....	202	24 00
	December 15-16.			
	Adamsville	Dobbins, Gordon, Mrs. Riedinger.....	300	25 00
	December 29-30.			
	County average		224	\$25 13
Noble.....	Summerfield	Montgomery, Buchanan, Mrs. Laws..	55	\$31 25
	December 17-18.			
	Dexter City	Tressler, Hayne	90	14 90
	January 21-22.			
	Batesville	Markley, Elliott, Miss Dorsey.....	270	25 00
	December 15-16.			
	Renrock	Buchanan, Montgomery	152	24 99
	December 19-20.			
	Keith	Markley, Blackford	110	25 00
	December 12-13.			
	County average		135	\$24 23
Ottawa.....	Curtice	Baldwin, Robertson	195	\$24 80
	February 11-12.			
	Port Clinton	Buchanan, Dunham, Mrs. Anderson...	250	25 00
	February 18-19.			
	Oak Harbor	Scott, Tressler	140	28 00
	February 6-7.			
	Genoa	Blackford, Brigham	216	7 20
	February 2-3.			
	Elmore	Knisely, Goodwin, Mrs. Laws.....	186	25 00
	January 26-27.			
	County average		197	\$22 00
Paulding.....	Payne	Herrick, Martindale	250	\$34 86
	January 19-20.			
	Oakwood	Smith, Funk, Mrs. Riedinger.....	235	25 00
	February 13-14.			
	Haviland	Begg, Smith	136	15 50
	January 9-10.			
	Antwerp	Herrick, Hummon	204	25 00
	January 7-8.			
	Grover Hill	Herrick, Hummon	144	25 00
	December 22-23.			
	County average		194	\$25 07
Perry.....	Unity	Begg, Elliott, Mrs. Durbin.....	97	\$25 00
	December 15-16.			
	Glenford	Blackford, Hammond, Miss Plotner..	322	25 00
	January 5-6.			
	Portersville	Gordon, Kibler	78	26 00
	December 26-27.			
	Rehoboth	Tressler, Markley	286	25 00
	Dec. 31-Jan. 1.			
	Thornville	Wagner, Gossard, Miss Plotner.....	465	25 00
	February 25-26.			
	County average		249	\$25 20
Pickaway.....	Darbyville	Brigham, Harsh, Mrs. Durbin.....	95	\$24 15
	February 23-24.			
	New Holland	Montgomery, Hudson, Miss Plotner..	410	138 20
	January 25-26.			
	Ashville	Hayne, Hudson	450	48 00
	January 2-3.			
	Fox	Brigham, Green	80	13 07
	December 26-27.			
	Kinderhook	Blackford, Hammond, Miss Plotner...	158	26 57
	January 7-8.			
	County average		238	\$50 00

FARMERS' INSTITUTES—1913-1914—Continued.

County.	Town and Date.	Speakers.	Average Attendance Each Session.	Local Expense.
Pike.....	Stockdale	Hudson, Blackford	300	\$125 00
	February 13-14.			
	Camp	Begg, Elliott	57	25 50
	December 1-2.			
	Cynthiana	Blackford, Hammond, Miss Plotner... 170		51 53
	January 9-10.			
	Piketon	Buchanan, Green, Miss Plotner..... 129		27 00
	January 9-10.			
	Latham	Gordon, Elliott, Mrs. Laws..... 200		25 00
	December 12-13.			
	County average		171	\$50 80
Portage.....	Aurora	Funk, Smith	131	\$32 00
	February 2-3.			
	Freedom	Buchanan, Montgomery, Mrs. Riedinger 80		17 50
	January 30-31.			
	Garrettsville	Smith, Burkholder	123	16 00
	December 22-23.			
	Kent	Spencer, Funk, Mrs. Laws..... 363		25 00
	January 23-24.			
	Edinburg	Smith, Harsh, Mrs. Riedinger..... 231		15 25
	January 21-22.			
	County average		185	\$21 15
Preble.....	West Alexandria.....	Nicodemus, Eastwood, Mrs. Laws.... 415		\$43 10
	February 2-3.			
	Campbellstown	Wagner, Galehouse, Mrs. Durbin.... 265		48 35
	January 2-3.			
	Morning Sun	Wagner, Hoddy, Mrs. Laws..... 246		58 95
	December 8-9.			
	West Manchester	Martindale, Brenneman, Mrs. Anderson 205		50 05
	December 10-11.			
	Eaton	Carmichael, Knisely, Mrs. Laws..... 520		24 80
	January 9-10.			
	County average		330	\$45 05
Putnam.....	Ottoville	Wagner, Houser	181	\$13 00
	February 9-10.			
	Lelpsic	Martindale, Herrick, Miss Plotner.... 450		35 00
	January 21-22.			
	Kalida	Smith, Funk, Mrs. Riedinger..... 241		25 00
	February 11-12.			
	Continental	Gordon, Nicodemus	366	30 00
	February 20-21.			
	Columbus Grove	Tressler, Markley, Mrs. Riedinger.... 120		27 00
	February 13-14.			
	County average		271	\$26 00
Richland.....	Plymouth	Houskeeper, Blackford, Mrs. Anderson 336		\$27 35
	January 23-24.			
	Lucas	Wagner, Thayer, Mrs. Anderson..... 284		21 15
	February 6-7.			
	Shelby	Baldwin, Bugby	183	40 00
	December 22-23.			
	Shiloh	Gordon, Bowaher	334	30 25
	January 5-6.			
	Bellville	Begg, Houser, Mrs. Anderson..... 341		24 85
	January 26-27.			
	County average		295	\$28 72
Ross.....	Adelphi	Hudson, Montgomery, Miss Plotner... 177		\$24 75
	January 7-8.			
	South Salem	Brigham, Robertson, Mrs. Anderson... 132		46 30
	December 29-30.			
	Frankfort	Houskeeper, Hoddy	117	4 00
	December 3-4.			
	County average		142	\$25 02
Sandusky.....	Gibsonburg	Hummon, Herrick	468	\$33 63
	January 16-17.			
	Belleveue	Begg, Goodwin	206	36 32
	January 16-17.			
	Woodville	Wagner, Hayden, Mrs. Laws..... 512		40 50
	January 28-29.			
	Lindsey	Knisely, Miller, Mrs. Durbin..... 188		23 35
	January 7-8.			
	County average		343	\$33 45

FARMERS' INSTITUTES—1913-1914—Continued.

County.	Town and Date.	Speakers.	Average Attendance Each Session.	Local Expense.
Scioto.....	Haverhill	Houskeeper, Hayne	126	\$25 00
	December 8-9.			
	Lucasville	Copeland, Hummon	85	21 34
	December 29-30.			
	Sedan	Houskeeper, Hoddy, Mrs. Durbin.	133	8 50
	December 5-6.			
	Empire Grange Hall.	Brigham, Hayne	171	20 00
Scioto	January 7-8.			
	Gordon, Kibler		109	23 57
	December 17-18.			
	County average		125	\$19 68
Seneca.....	Bettisville	Thomas, Buchanan	146	\$22 30
	February 13-14.			
	Republic	Brigham, Dobbins, Mrs. Laws.	410	60 00
	January 28-29.			
	Greenspring	Buchanan, Scott, Mrs. Riedinger.	273	42 60
	February 23-24.			
	Tiffin	Wagner, Crumley, Miss Dorsey.	1,080	85 19
Fostoria	January 16-17.			
	Begg, Goodwin, Mrs. Anderson.		690	92 25
	February 18-19.			
	County average		520	\$60 47
Shelby.....	Sidney	Galehouse, Wagner	162	\$26 25
	December 29-30.			
	Pemberton	Brenneman, Matheny	223	56 45
	December 26-27.			
	Anna	Begg, Galehouse	162	26 70
	December 22-23.			
	Jackson Center	Tresler, Markley	233	30 00
Houston	February 11-12.			
	Blackford, High		150	25 00
	December 22-23.			
	County average		186	\$32 88
Stark.....	Battlesburg	Gordon, Hayne	64	\$10 67
	February 13-14.			
	Canal Fulton	Begg, Knisely, Mrs. Durbin.	333	26 95
	February 4-5.			
	Wilmot	Burlingame, Houskeeper, Mrs. Durbin.	254	24 00
	January 9-10.			
	Robertsville	Dobbins, Buchanan	226	25 05
Harrisburg	January 19-20.			
	Houskeeper, Burlingame, Mrs. Durbin.		237	24 70
	January 7-8.			
	County average		223	\$22 27
Summit.....	Hudson	Smith, Knisely, Mrs. Durbin.	205	\$32 40
	February 6-7.			
	Bath Center	Harsh, Smith, Mrs. Riedinger.	270	75 00
	January 19-20.			
	Inland	Gordon, Hawthorne, Miss Dorsey.	290	40 00
	January 28-29.			
	Clinton	Nicodemus, Harrick	214	50 00
Copley	January 2-3.			
	Houskeeper, Scott		140	70 13
	January 12-13.			
	County average		224	\$53 50
Trumbull.....	Warren	Smith, Burkholder	87	\$3 25
	December 26-27.			
	Brookfield	Moore, Knisely, Mrs. Anderson.	161	23 50
	December 15-16.			
	Kinsman	Montgomery, Buchanan, Mrs. Riedinger	200	15 25
	January 26-27.			
	Burghill	Gordon, Hoddy, Miss Dorsey.	213	26 00
Mesopotamia	February 2-3.			
	Nicodemus, Smith, Mrs. Riedinger.		...	25 00
	January 26-27.			
	County average		165	\$19 60
Tuscarawas.....	Sandyville	Hayne, Gordon	80	\$20 00
	February 11-12.			
	Winfield	Begg, Green, Mrs. Anderson.	243	26 60
	February 2-3.			
	Peoli	Houskeeper, Robertson	98	9 75
	December 26-27.			
	Gnadenhutzen	Markley, Bugby	264	23 60
Ragersville	January 21-22.			
	Hayne, Blackford, Mrs. Riedinger.		226	15 00
	December 17-18.			
	County average		181	\$13 99

FARMERS' INSTITUTES—1913-1914—Continued.

County.	Town and Date.	Speakers.	Average Attendance Each Session.	Local Expense.
Union.....	Richwood	Burlingame, Gordon, Mrs. Laws.....	272	\$38 30
	January 16-17.			
	Marysville	Begg, Elliott, Miss Plotner.....	88	44 50
	December 19-20.			
	Broadway	Wagner, Bowsher, Miss Plotner.....	165	13 00
	December 15-16.			
	York	Burkholder, Baldwin, Mrs. Anderson.	400	30 40
Watkins	January 2-3.			
	December 17-18.	Smith, Burkholder, Miss Plotner.....	146	25 00
		County average	214	\$30 24
Van Wert.....	Wetsel	Nicodemus, Baldwin, Miss Plotner....	282	\$22 27
	February 18-19.			
	Ohio City	Wagner, Houser, Mrs. Riedinger.....	78	25 40
	February 11-12.			
	Venedocia	Montgomery, Hammond	149	26 60
	January 21-22.			
	Wren	Green, Hudson, Miss Plotner.....	206	23 70
Convoy	January 19-20.			
	January 9-10.	Herrick, Hummon	395	25 00
		County average	232	\$24 59
Vinton.....	Knox (Bethel Church)....	Markley, Scott	107	\$24 08
	December 1-2.			
	Allenaville	Houskeeper, Hoddy, Mrs. Durbin.....	64	10 00
	December 1-2.			
	New Plymouth	Burlingame, Blackford	140	25 60
	December 5-6.			
Wilkesville	December 22-23.	Houskeeper, Robertson	87	22 65
		County average	100	\$20 58
Warren.....	Butlerville	Hudson, Blackford	320	\$33 10
	February 11-12.			
	Carlisle	Houser, Kibler, Gordon.....	186	31 02
	December 22-23.			
	Mason	Houskeeper, Hummon, Mrs. Riedinger	340	29 00
	February 18-19.			
	Harveysburg	Brigham, Green, Miss Plotner.....	213	42 29
Lebanon	December 19-20.			
	January 7-8.	Baldwin, Dobbins, Mrs. Laws.....	345	23 60
		County average	281	\$31 78
Washington.....	Lowell	Buchanan, Elliott	136	\$27 15
	December 22-23.			
	Beverly	Copeland, Burlingame, Miss Dorsey...	270	28 75
	February 27-28.			
	Whipple	Nicodemus, Spencer, Miss Dorsey....	203	16 48
	January 7-8.			
	Bartlett	Markley, Tressler, Mrs. Riedinger...	238	25 00
Watertown	January 2-3.			
	December 29-30.	Brenneman, Hammond	251	26 50
		County average	229	\$24 77
Wayne.....	Smithville	Spencer, Funk, Mrs. Laws.....	379	\$57 37
	January 21-22.			
	Orrville	Gordon, Bowsher, Mrs. Anderson.....	524	23 60
	January 23-24.			
	West Salem	Nicodemus, Herrick	297	38 00
	Dec. 31-Jan. 1.			
	Blachleyville	Smith, Harsh, Miss Dorsey.....	130	20 00
Congress	January 16-17.			
	December 3-4.	High, Moore	172	25 00
		County average	283	\$32 80
Williams.....	Edon	Baldwin, Harsh, Mrs. Anderson.....	315	\$24 70
	December 17-18.			
	Kunkle	Smith, Hoddy	277	26 73
	February 18-19.			
	Edgerton	Martindale, Goodwin	330	8 50
	January 28-29.			
	West Unity	Begg, Brenneman	497	26 43
Stryker	February 27-28.			
	February 13-14.	Harsh, Scott	170	28 85
		County average	318	\$23 04

FARMERS' INSTITUTES—1913-1914—Concluded.

County.	Town and Date.	Speakers.	Average Attendance Each Session.	Local Expense.
Wood.....	North Baltimore.....	Begg, Goodwin, Mrs. Anderson.....	177	\$42 60
	February 20-21.			
	Pemberville	Herrick, Baldwin	112	25 00
	February 13-14.			
	Grand Rapids	Wagner, Martindale, Miss Plotner....	414	25 00
	March 2-3.			
	Bloomdale	Wagner, Crumley	204	34 65
Custar	January 12-13.		400	42 85
	January 5-6.	Herrick, Hummon	400	42 85
		County average	261	\$34 02
Wyandot.....	Wharton	Begg, Crumley, Miss Dorsey.....	191	\$25 00
	January 21-22.			
	Upper Sandusky	Gordon, Bowsher, Mrs. Anderson.....	500	105 79
	January 9-10.			
	Sycamore	Hoddy, Houskeeper	400	78 50
	January 30-31.			
Nevada	February 6-7.	Markley, Coffey	265	27 68
		County average	339	\$59 24

RECAPITULATION.

Total number regular institutes held during season.....	414
Average attendance	235
Total average attendance.....	97,290
Total attendance, five sessions.....	486,450
Maximum average attendance each session (Seneca county).....	520
Minimum average attendance each session (Vinton county).....	100
Maximum average local expense (Jefferson county).....	\$93 34
Minimum average local expense (Jackson county).....	\$18 12
Total local expenses for 88 counties.....	\$13,211 09

INDEPENDENT FARMERS' INSTITUTES—SEASON 1913-1914.

Town and County.	Speakers.	Average Attendance Each Session.	Expense.
Bluffton, Allen.....	Funk, Mrs. Durbin.....	68	\$30 00
Bellaire, Belmont.....	Chamberlain.....	182	93 00
Loydsville, Belmont.....	Dickinson.....	138	23 50
Malvern, Carroll.....	Herrick, Knisely.....	250	6 51
Clarksville, Clinton.....	Cook, Dobbins.....	170	25 50
N. Royalton, Cuyahoga.....	Leimbach, Biddinger.....	255	25 00
Brock, Darke.....	Gordon, Nicodemus.....	200	.....
Pleasantville, Fairfield.....	Baldwin, Leimbach.....	375	28 00
Westerville, Franklin.....	Vivian, White, Mrs. Foulk.....	260	60 00
Yellow Springs, Greene.....	Taber, Powell.....	300	55 00
Benton Ridge, Hancock.....	Dickinson, Cowdrey.....	942	42 00
Rawson, Hancock.....	Cox, Sandies, Graham, Carmichael, Mrs. Anderson.....	267	52 50
Arlington, Hancock.....	Williams (C. G.).....	225	54 80
Cadiz, Harrison.....	Tressler, Powell.....	270	56 05
Florida, Henry.....	Leimbach, Dickinson.....	122	12 00
Nashville, Holmes.....	Hooley.....	226	22 00
Fitchville, Huron.....	Hudson, Sears.....	303	60 00
Wintersville, Jefferson.....	Goble, Mrs. Wickersham.....	54	20 87
Croton, Licking.....	Herrick, Greene, Mrs. Garvin.....	150	11 48
Summit, Licking.....	Farnsworth, Palmer.....	325	.....
Zanesfield, Logan.....	Bartler, Stedronsky.....	277	30 00
N. Ridgeville, Lorain.....	Hayden, Markley.....	200	20 00
Fenfield, Lorain.....	Dobbs.....	200	10 00
North Lima, Mahoning.....	Burkholder.....	360	60 00
Litchfield, Medina.....	Biddinger, Tope.....	149	81 50
Spencer, Medina.....	Porterfield.....	89	18 80
Tuppers Plains, Meigs.....	Kibler, Miller.....	156	10 50
St. Henry, Mercer.....	McColm.....	156	20 00
Ft. Recovery, Mercer.....	Miller.....	155	15 00
Coldwater, Mercer.....	Biddinger, Hooley.....	362	20 00
Sulphur Grove, Montgomery.....	Conover, McColm, Mrs. Durbin.....	350	48 15
Trotwood, Montgomery.....	Conover, Miller, Mrs. Wickersham.....	350	47 00
Englewood, Montgomery.....	Conover, Goble.....	200	40 00
Farmersville, Montgomery.....	Montgomery, Dickason.....	271	.....
White Cottage, Muskingum.....	Graham, High, Mrs. Durbin.....	288	31 75
Chandlersville, Muskingum.....	Powell.....	300	.....
Tarleton, Pickaway.....	Biddinger.....	19	.....
Williamsport, Pickaway.....	Brenneman.....	500	65 00
E. E. Hall's Farm, Pike.....	Hooley, Biddinger.....	330	35 00
New Paris, Preble.....	Scott, Brenneman.....	330	94 10
Lewisburg, Preble.....	Biddinger, Durbin.....	79	.....
Eldorado, Preble.....	Brigham.....	175	32 50
Cloverdale, Putnam.....	Miller.....	131	43 15
Marlboro, Stark.....	Tope, Miller, Thayer.....	175	75 00
Osnaburg, Stark.....	Hull, Mrs. Foulk.....	325	47 10
Alliance, Stark.....	Elliott.....	290	42 00
Wooster, Wayne.....	Harsh.....	137	23 00
Shreve, Wayne.....	Farnsworth, Tressler.....	346	30 00
Montpelier, Williams.....	Miller, Powell.....	.....	.....
Perrysburg, Wood.....	.....	.....	.....
Total.....	.....	11,366	\$1,617 76

REPORT
ON
Nursery and Orchard Inspection
For the Year 1913

By N. E. SHAW
CHIEF INSPECTOR

(865)

Greetings—1913

This report is a store house of information and should be frequently consulted by purchasers of Insecticidal and Fungicidal products.

The object of the Insecticide and Fungicide Law is to protect the Agricultural Interests, the Live Stock Interests and the Fruit Growing Interests of the State; to fix a standard for such preparations as Arsenate of Lead, Lime-Sulphur Solution, Paris Green, Bordeaux Mixture, etc.; to regulate the sale of substances and compounds sold as insecticides and fungicides, to prevent their adulteration, to expose and prevent frauds, and to protect manufacturers and dealers in the sale of honest goods.

Any farm product that is injured by an insect can never rank as first class.

Insect injury alone to the agricultural products of the country amounts to millions of dollars each year, so it behooves every buyer of insecticidal and fungicidal preparations to insist upon the same being sold under guaranteed analyses and state inspection.

The Ohio Insecticide and Fungicide Law is modeled after the National Government Act. It should meet with the endorsement of every manufacturer of honest goods.

Prospective purchaser should consult the Reports and Official Bulletins issued by the Division of Agriculture before buying. It will pay you.

Respectfully,

A. P. SANDLES,

President.

(866)

REPORT OF NURSERY AND ORCHARD INSPECTION.

The horticultural interests of the State have steadily advanced along all lines. A large number of commercial orchards, principally of apple and of peach, were planted during the year. The encouraging feature of horticultural development in Ohio at the present time is the careful and well advised planting which is being done. Varieties are being selected suitable to the locality in which they are being planted, and adapted to the requirements of the markets which they will supply. Locations are selected with reference to frost protection, soil requirements and other conditions which have a bearing on the welfare of the orchard. While the growth of the industry has not been phenomenal or spectacular, it has been steady and substantial which gives it an assurance of permanency. In all of this development the work and advice of your Commission through its several Divisions, is apparent. The confidence of our horticulturists in state service is evident in the care with which they have followed the advice given with reference to all horticultural practices.

With respect to farm orchards, the situation is far from encouraging. In many sections of the State, conditions are deplorable. San Jose scale has been permitted to rage unchecked in too large a percentage of them. Other pests have added their mite and nothing but careful and persistent work will redeem these orchards.

In order to gain an exact and accurate knowledge of conditions of farm orchards, to learn why better results were not being obtained, and in order to give proper assistance, a survey was made of all farm orchards in a portion of Delaware County. The result of this work is given elsewhere in this report.

Our apple orchardists, with a few exceptions, have need to make some radical changes in grading, packing and marketing methods. Too little attention is being paid to this feature of the business at the present time. An investigation of Ohio markets was made during the winter months and a few facts were learned which should be of benefit to Ohio growers. Practically all apple dealers interviewed expressed a preference for Ohio grown apples when they were properly graded and packed. Grocers stated that they counted upon a loss of from fifteen to forty per cent in the average barrel pack. With a loss of these proportions to guard against, it is not possible to pay very high prices for packages, the contents of which are so uncertain. Too many producers are still inclined to place small and inferior apples in

the center of the barrel and as long as this practice is continued just so long will our markets be taken by fruit from other sources where better packing methods are followed.

Your Commission, through some Bureau, could do much to remedy this condition. It has been suggested by some of our fruit growers that certain standards for grading be established and licenses issued to growers willing to pack in accordance with these standards; their packages to be marked according to grade and be subject to inspection. I heartily favor a plan of this nature and would recommend that your Commission consider the possibility of its adoption and operation. But little service of this nature has been given by the State and our fruit growers will, no doubt, appreciate and make use of any assistance offered.

The correspondence of the Division during the year has contained numerous requests that some assistance be rendered fruit growers in finding proper markets for their products. Failure on the part of the smaller growers to receive fair prices for their fruit has prompted these inquiries. Usually they do not have the opportunity to find proper markets and are forced to consign their shipments to commission men in distant cities, where the chances for adequate returns are often very uncertain. In connection with co-operative work in other lines of agriculture, your Commission could render the horticultural interests valuable assistance in finding suitable markets. At one time during the fall of the present year, the price of apples in two of our large markets showed a difference of nearly \$1.00 per bushel. I feel sure that through the assistance of a proper state bureau, a better distribution of all kinds of agricultural products would be effected and better average returns would be received by the producer.

The interest taken in the Junior Apple Growing Contest which was started in a small way last Spring justifies the continuance of this work on a much larger scale for 1914. Owing to the tardiness in receiving the printed regulations, and the crippled condition of the mail service, due to the severe floods, not as many contestants were secured as was desired. The influence of the work of these boys and girls in their different communities in bringing about increased interest and better care of farm orchards was very great. A block of trees properly cared for through a season by one of these boys is of more value to the community than a demonstration orchard under charge of this Division. The work should be started early next year. Two classes should be made, one for farm orchards and one for commercial orchards in order that all farm boys may have the opportunity to enter.

The Division was instrumental in preparing a bill which was enacted into law, regulating the sale and manufacture of insecticides

and fungicides. A measure of this kind was greatly needed as shown by result of analyses of spray materials collected on Ohio markets, and published in a previous report of this Division. The inferiority of these materials and failure of our orchardists to get any beneficial results from their use has led to considerable discouragement, especially among owners of farm orchards.

In connection with the enforcement of this law, a field test of the different brands will be necessary in order to determine whether or not they are misbranded. This work will be of greater necessity and value than the chemical analyses of the brands. Someone with a scientific knowledge of insects and plant diseases should be placed in charge of this work. It would also be advisable to lease, for a period of years, some orchard where these uninterrupted tests could be made and results observed.

The two fair exhibits of the Division were sent to thirteen county fairs and both were shown in a general division exhibit at the State Fair. The interest shown in these exhibits and the number of visitors is variable, depending somewhat on the location given by the fair management. If this work is continued it would be advisable to insist that the fair officials provide the best location possible.

Inspection of Nurseries.

Applications received.....	396
Certificates issued.....	359
Certificates of inspection refused or held for various reasons..	37
Certificates issued between Jan. 1 and June 1.....	45

Inspection of nurseries was completed by September 15th, as required by law. As usual, in seasons of protracted drouth, infestation with San Jose scale was serious in a number of nurseries and a large loss of stock resulted. When Summer rains are abundant, while the young lice of San Jose scale are being produced, large numbers of them are washed to the ground and perish. In dry seasons they develop and unhindered attach themselves in countless numbers.

Ohio nurserymen were required to notify inspectors of the receipt of nursery stock from other states that was intended for re-shipment under their own certificate. A number of shipments were found to be infested with San Jose scale and infected with crown gall, the latter pest being found in large numbers in some shipments.

Your attention is again called to the necessity of inspecting at destination all shipments of nursery stock entering the State. Until this is provided for, our fruit interests will not be given proper protection. An amendment embodying this provision should be incorporated into our law.

Three affidavits were filed against violators of the law in selling

nursery stock without certificate of inspection. In two instances the minimum fine and costs were assessed. The third case was dismissed by the court on the promise of the defendant not to violate the law in the future. The principal violators are growers of small fruit plants, many of whom persist in selling stock without inspection. Whenever sufficient evidence can be obtained, affidavits are filed against offenders.

Inspection of Orchards.

Number of orchards inspected during the year.....	709
Number of acres of orchards inspected.....	6,970
Number of trees inspected in orchards.....	482,212

These figures do not include orchards examined on nursery premises, but many of them are located near nurseries and were inspected because of their close proximity to growing nursery stock.

In a number of these orchards, the owners refused to treat them according to the instructions and it became necessary for the work to be done by this Division. In all cases the costs of treatment were certified to the Auditor of the county in which the work was done to become a lien on the premises and be collected as taxes by the county treasurer.

Considerable annoyance and confusion was caused by the existence of a compulsory spray law. Many owners of orchards confused this law with the nursery and orchard inspection law under which orders for treatment were given and thinking it inoperative refused to treat their trees.

A number of large orchards were inspected in order that owners could dispose of scions and bud sticks. Certificates are issued for the disposal of such stock.

In Delaware County where an inspection was made of 436 farm orchards, ninety-five per cent were found to be infested with San Jose scale. Sixty per cent of the owners had been spraying for this insect. Good results had been obtained at about thirty per cent of the places visited while results at the rest of the orchards were either very poor or no results had been accomplished at all.

As a rule owners of farm orchards are not persistent enough in their efforts to eradicate San Jose scale. Good work is sometimes done for a year or so then farm work or unfavorable weather is allowed to interfere, nothing is done and infestation again becomes serious.

Unless our farmers realize that spraying must be included in the annual routine of farm work and be performed with the same degree of thoroughness that is required to produce a satisfactory farm crop of any kind, they will soon be without a farm orchard.

Inspection of Imported Nursery Stock.

Number cases of imported stock received	2,585
Number stocks examined	2,933,081

With the necessity for the inspection of imported nursery stock which is done during the winter months, the work of the Division has become uniformly distributed throughout the year. Late in September azaleas begin to arrive in large quantities. Their inspection necessitates considerable travel because of the fact that they are imported by greenhouse men throughout the state and are not confined to nursery centers as are shipments of fruit and ornamental stocks.

Through the Federal Horticultural Board of the United States Department of Agriculture, notices are received of practically every shipment destined for the state. Every shipment is carefully examined on arrival at destination. During the year no new pests have been discovered on these shipments, although several already established have been detected and eradicated at once.

With the quarantine power vested in the Federal Horticultural Board, foreign countries have adopted better inspection methods and less danger from the introduction of foreign pests being received can be expected.

Demonstrations.

Twenty-three orchards were selected in the State for demonstration work through the season. Late frosts destroyed crop prospects in several of these orchards and work in them was necessarily dropped for the season.

Several of the orchards were those used for demonstration work during the previous year. It seems advisable that arrangements should be made for the use of these orchards for a period of several years. It has been found that the interest in a community in which one is located grows from year to year. It becomes well known as a demonstration orchard and results obtained are watched more closely. The plan also has the advantage of receiving the cumulative results of the work of the preceding years which is very important and necessary in demonstration work. If the crop should fail for one year, the disappointment is not so great as when the orchard is used for but one season.

The average crop for these demonstration orchards for the year was very light owing to the several frosts of Spring which occurred throughout the state. In several orchards, however, a full crop was harvested. It is impossible to give returns for these orchards as some of the crops are still held in storage.

In addition to these orchards over fifty one day demonstrations

were given in different parts of the State. The interest taken was good and the attendance always large unless weather conditions were not of the best. The total number of people in attendance was 1,600. This number does not include school children which were present at many of these demonstrations and showed remarkable interest in the work done.

Agents and Dealers.

The number of agents who have filed sworn statements during the year, as required by law and who have been granted licenses is 400. Fifty-eight dealers have qualified with the Division by filing sworn statements and paying fees for dealers' certificates.

These numbers include agents and dealers who were granted licenses and certificates early in the year and which expired during the month of September.

A number of dealers refuse to qualify because of an error in the law exempting those dealing in stock delivered in the original package from Ohio nurseries. This error should be corrected at the first opportunity.

It entails an enormous amount of correspondence to secure the proper qualifications from many agents and dealers. Nurserymen as a rule have greatly assisted in this work by supplying their agents with our forms for sworn statements, but so many new men are secured for this work each year that a full explanation and quite often threats are necessary before the statement and license fee are forthcoming.

STATISTICAL.

Trees, shrubs, plants and vines condemned by this Division and destroyed by owners:

In Orchards.

For San Jose scale.....	525 trees
For oyster-shell scale.....	26 trees
For peach yellows.....	53 trees
For black knot.....	7 trees
Total.....	611 trees

In Nurseries.

For San Jose scale	33,184 trees
For scurfy scale	30 trees
For Putnam scale	6 trees
For wooly aphid and crown gall	1,223 trees
For San Jose scale	383 shrubs
For Oyster-shell scale	426 shrubs
For San Jose scale	151 plants
Total	35,403

Trees, shrubs, plants and vines treated in accordance with the directions of this Division:

With lime-sulphur wash for San Jose scale	158,513 trees
With lime-sulphur wash for oyster-shell scale	28 trees
With lime-sulphur wash for scurfy scale	615 trees
With lime-sulphur wash for San Jose scale	534 plants
Treated for black knot	298 trees
Total	159,988

With lime-sulphur wash for San Jose scale.....850 rods o. o. hedge

Nursery stock fumigated with hydrocyanic acid gas for San Jose scale:

Trees	5,997,407
Shrubs	49,612
Plants	547,346
Vines	16,653
Total	6,611,018

Number orchard trees inspected	483,492
Number of acres nursery stock inspected	3,023

LIST OF OHIO NURSEYMEN.

1912-1913.

Name and Address of Owner and Nursery.	Certificate No.	Kind of Stock.	Acres of Stock.
Adkins, B. S., Chesapeake, Ohio.....	147	Fruit trees.....	1
Albaugh, T. F., Clyde, Ohio.....	210	Small fruit plants.....	3½
Allen, W. A. & Sons, Geneva, Ohio.....	87	General nursery stock.....	40
Alt, Wm. J., Baltimore, Ohio.....	149	Small fruit plants.....	1½
Altimo Culture Co., Canfield, Ohio.....	237	General nursery stock.....	5
American Rose and Plant Co., Springfield, Ohio.....	65	Ornamental shrubs.....	1

LIST OF OHIO NURSERYMEN—Continued.

Name and Address of Owner and Nursery.	Certificate No.	Kind of Stock.	Acres of Stock.
Armstrong, R. W., Elkton, Ohio.....	290	Small fruit plants.....	3
Ashford, J. C., Rogers, Ohio.....	278	Small fruit plants.....	4
Ashley, E. E., Letart Falls, Ohio.....	282	Strawberries.....	4
Aultfather, H. H., Minerva, Ohio.....	116	Small fruit plants.....	6
Babbs, H. P., McArthur, Ohio.....	181	Fruit trees.....	1½
Bailes, T. H., Bidwell, Ohio.....	31	Fruit trees.....	1
Bailey Bros., Hubbard, Ohio.....	318	Small fruit plants.....	9
Bailey, George T., Geneva, Ohio.....	161	Small fruit plants.....	2½
Baines, Ella V., Springfield, Ohio.....	19	Ornamentals.....	1
Baker, Peter, J. So. Point, Ohio.....	303	Small fruit plants.....	3
Baker, C. V., Stoutsville, Ohio.....	245	Fruit trees.....	1½
Barr, Byron, Madison, Ohio.....	319	Small fruit plants.....	1½
Barhite, D. C. & B. G., Wauseon, Ohio.....	98	General nursery stock.....	3
Barnes, M. & Co., Station K, Cincinnati, Ohio.....	165	General nursery stock.....	1
Barnes & Huber, Mt. Healthy, Ohio.....	257	General nursery stock.....	
Barnes & Son, A., Mt. Healthy, Ohio.....	240	General nursery stock.....	15
Barker, J. H., Middleport, Ohio.....	115	Small fruit plants.....	4½
Barr, L. M., Dayton, Ohio.....	112	Small fruit plants.....	3
Barth, J. F., New Bremen, Ohio.....	129	General nursery stock.....	1
Beck & Beck, Piqua, Ohio.....	118	General nursery stock.....	3
Benson, Clark, New Carlisle, Ohio.....	89	Small fruit plants.....	3
Bernard, F. F., Painesville, Ohio.....	10	Ornamentals.....	4
Bernard, A. F., Painesville, Ohio.....	55	General nursery stock.....	10
Berry, P. D., Dayton, Ohio.....	70	Small fruit plants.....	30
Bertolette, Glenn, Columbiana, Ohio.....	314	Small fruit plants.....	1
Betz, W. A., 2548 E. 55th St., Cleveland, Ohio.....	73	General nursery stock.....	3
Biddle Bros., Mallett Creek, Ohio.....	105	Ornamentals.....	½
Binnig, F. W., Painesville, Ohio.....	8	Small fruit plants.....	3
Birch, J. B., Carrollton, Ohio.....	150	General nursery stock.....	3
Blackmore, George, Perry, Ohio.....	180	Fruit trees.....	3
Bohlender, P. & Sons, Tippecanoe City, Ohio.....	2	General nursery stock.....	28
Border City Plant Co., Piqua, Ohio.....	45	General nursery stock.....	2
Boster, W. S., Chesapeake, Ohio.....	277	Small fruit plants.....	3
Botkin, S. C., New Carlisle, Ohio.....	279	Small fruit plants.....	3
Bowling, W. G., Lisbon, Ohio.....	141	Small fruit plants.....	5
Brainard, O. E., Perry, Ohio.....	230	Small fruit plants.....	4
Brewster, E. M., Perry, Ohio.....	205	General nursery stock.....	10
Brown, Howard C., Yellow Springs, Ohio.....	268	Ornamentals.....	1½
Brown, Chas. C., Cardington, Ohio.....	253	Small fruit plants.....	1
Buechly, E. M., Greenville, Ohio.....	167	General nursery stock.....	4
Burkholder, Hiram, Clyde, Ohio.....	305	Small fruit plants.....	½
Buechly, N., Clayton, Ohio.....	63	General nursery stock.....	12
Bull & Brady, St. Paris, Ohio.....	170	General nursery stock.....	2
Burton, J. S., Castown, Ohio.....	198	General nursery stock.....	4
Buskirk Bros., Independence, Ohio.....	228	General nursery stock.....	20
Cain, James G., Reno, Ohio.....	218	Fruit trees.....	
Call, S. W., Perry, Ohio.....	75	General nursery stock.....	60
Carpenter, A., Canal Winchester, Ohio.....	125	General nursery stock.....	6
Cartwright, I. D., Toledo, Ohio.....	37	Ornamentals.....	½
Carr, L. W., Lakewood, Ohio.....	286	General nursery stock.....	½
Carr's L. M. Sons, Yellow Springs, Ohio.....	232	General nursery stock.....	6
Carson Bros., Middleport, Ohio.....	293	Small fruit plants.....	3½
Carson, R. B., Middleport, Ohio.....	201	Small fruit plants.....	2½
Cassel Nursery Co., Lakewood, Ohio.....	304	General nursery stock.....	4
Champion, H. J. & Son, Perry, Ohio.....	168	General nursery stock.....	60
Child, W. R., Perry, Ohio.....	159	Small fruits.....	½
Child Bros., Perry, Ohio.....	280	Small fruit plants.....	5
Childers, H. A., Proctorville, Ohio.....	64	Small fruit plants.....	½
Christian, C. H. & Son, Perry, Ohio.....	117	Small fruit plants.....	9
Coggeshall, J. C., Little Hocking, Ohio.....	54	Fruit trees.....	2
Cole, W. B., Painesville, Ohio.....	113	General nursery stock.....	150
Cook & Son, J. H., Perry, Ohio.....	61	Small fruit plants.....	5
Cope, W. G., Beloit, Ohio.....	284	Small fruit plants.....	5
Cope Bros., Salem, Ohio.....	77	General nursery stock.....	10
Cope, Eliphas, Rogers, Ohio.....	103	General nursery stock.....	4
Cope, Sidney, Rogers, Ohio.....	107	Small fruit plants.....	2
Cowen, Ellsworth, Barnesville, Ohio.....	166	Small fruit plants.....	10
Cowen, Ross, Xenia, Ohio.....	53	Small fruit plants.....	5
Cox, E. G., Proctorville, Ohio.....	28	Fruit trees.....	1
Craine, Max J., Perry, Ohio.....	164	Small fruit plants.....	4
Crawford, Milton, Salem, Ohio.....	281	Small fruit plants.....	4
Crawford, M. Co., Cuyahoga Falls, Ohio.....	79	Small fruit plants.....	3
Crest Nursery, Piqua, Ohio.....	46	General nursery stock.....	2
Cushman Gladiolus Co., Sylvania, Ohio.....	42	Fruit tree stock.....	½
Dascomb, C. H., Madison, Ohio.....	169	Small fruit plants.....	1½
Day, H. S., Fremont, Ohio.....	95	General nursery stock.....	20
Deitrick, E. I., Tippecanoe City, Ohio.....	102	Small fruit plants.....	½
Dubois, Wilbur, Madisonville, Ohio.....	262	Ornamentals.....	1
Dysinger & Son, Wm., Tippecanoe City, Ohio.....	91	General nursery stock.....	91

LIST OF OHIO NURSERYMEN—Continued.

Name and Address of Owner and Nursery.	Certificate No.	Kind of Stock.	Acres of Stock.
Earhart, Wm. D., Lexington, Ohio.....	225	Small fruit plants.....	$\frac{1}{2}$
Eaton, L. D., Proctorville, Ohio.....	271	Fruit trees.....	2 $\frac{1}{2}$
Edwards, Levi, Proctorville, Ohio.....	272	General nursery stock.....	1
Ernst, Charles, Moscow, Ohio.....	72	Small fruit plants.....	20
Ernst, Christ J., Perry, Ohio.....	92	Small fruit plants.....	92
Eureka Nursery, Troy, Ohio.....	50	General nursery stock.....	50
Fairmount Nursery, Troy, Ohio.....	137	General nursery stock.....	
Fairview Floral Co., Springfield, Ohio.....	68	General nursery stock.....	
Farmers Nursery Co., Troy, Ohio.....	32	General nursery stock.....	74 $\frac{1}{2}$
Farnsworth, W. W. Co., Waterville, Ohio.....	3	Strawberries.....	5
Fawyer, Irving C., West Dover, Ohio.....	88	Small fruit plants.....	2
Few, R. G., Perry, Ohio.....	302	Small fruit plants.....	1 $\frac{1}{2}$
Few, H. C., Perry, Ohio.....	110	Fruit trees.....	2
Finney, T. T., Millersburg, Ohio.....	226	Fruit trees.....	5
Fogle, O. P., Cambridge, Ohio.....	82	Small fruit plants.....	4
Ford Seed Co., Ravenna, Ohio.....	131	General nursery stock.....	5
Fox & Son, John, Covington, Ohio.....	192	General nursery stock.....	4
Franklin, J. M., Coolville, Ohio.....	11	Fruit trees.....	2
French Nursery Co., Clyde, Ohio.....	33	General nursery stock.....	35
Fretz, Arthur, Canal Dover, Ohio.....	289	Small fruit plants.....	2
Friesner, J. D., Lancaster, Ohio.....	174	General nursery stock.....	4
Fries, Charles, Lakewood, Ohio.....	101	General nursery stock.....	7
Gable, Henry P., West Salem, Ohio.....	156	Small fruit plants.....	2 $\frac{1}{2}$
Gates, C. B., Mentor, Ohio.....	199	Shrubs.....	4
George, Thomas F., Ada, Ohio.....	6	Strawberries.....	
Gibson, J. M., Chesapeake, Ohio.....	209	Small fruit plants.....	5
Goode & Reese Co., Springfield, Ohio.....	17	General nursery stock.....	1
Great Western Plant Co., Springfield, Ohio.....	18	Ornamentals.....	1
Green, Mrs. L. E., Sharon Center, Ohio.....	207	General nursery stock.....	
Greider, John, Brandt, Ohio.....	44	General nursery stock.....	5
Groves, T. A., Barnesville, Ohio.....	97	Small fruit plants.....	3
Guyann, Ellis, Glen Rose, Ohio.....	52	General nursery stock.....	5
Hacker, R. A., Painesville, Ohio.....	4	Ornamentals.....	4
Hall, M. C., Freedom Station, Ohio.....	255	Strawberries.....	$\frac{1}{2}$
Hanauer, Frank, Dayton, Ohio.....	299	Ornamentals.....	2 $\frac{1}{2}$
Hartwig, John, Andis, Ohio.....	26	Fruit tree stock.....	1 $\frac{1}{2}$
Harmon & Son, M. O., Prospect, Ohio.....	220	Small fruit plants.....	2
Hathaway, Wick, Madison, Ohio.....	146	Small fruit plants.....	15
Haverland, B. H., Mt. Healthy, Ohio.....	140	Small fruit plants.....	1 $\frac{1}{2}$
Harbaugh, J. C., Brandt, Ohio.....	188	Small fruit plants.....	2
Hawk, L. T., Fremont, Ohio.....	254	Strawberries.....	5
Hawkins, W. W. & Son, Kensington, Ohio.....	301	Small fruit plants.....	4 $\frac{1}{2}$
Heade & Schmidt, Brandt, Ohio.....	21	Small fruit plants.....	5
Heberling, H. G., Cadiz, Ohio.....	60	Strawberries.....	$\frac{1}{2}$
Heffner, Jacob, Tippecanoe City, Ohio.....	134	Small fruit plants.....	4
Heffner, C. L. V., Brandt, Ohio.....	172	Small fruit plants.....	$\frac{1}{2}$
Hemm, George, Sidney, Ohio.....	80	Ornamentals.....	$\frac{1}{2}$
Henderson, Leo, Philo, Ohio.....	133	Small fruit plants.....	2
Hess, R., Akron, Ohio.....	114	General nursery stock.....	9
Hoffman, C. W., Dayton, Ohio.....	160	Fruit and shade trees.....	1
Horticultural Selling Co., Elyria, Ohio.....	246	Ornamentals.....	
Horvath, M. H., Cleveland, Ohio.....	203	General nursery stock.....	25
Horne, Ira J., Salem, Ohio.....	104	Small fruit plants.....	3
Hoyd, Claud, Carpenter, Ohio.....	93	Small fruit plants.....	1
Hunkler, W. A., Barnesville, Ohio.....	263	Small fruit plants.....	4 $\frac{1}{2}$
Huntington, R. E., Painesville, Ohio.....	23	Ornamentals.....	
Huntley, Frank, Vinton, Ohio.....	59	Small fruit plants.....	2
Hutchinson, Fred, Clyde, Ohio.....	51	Small fruit plants.....	3
Imley, J. D., Zanesville, Ohio.....	81	Ornamentals.....	$\frac{1}{2}$
Jayne & Baker, Painesville, Ohio.....	222	Fruit tree stock.....	4
Jenkins & Son, J., Winona, Ohio.....	153	General nursery stock.....	40
Kaiser & Son, Fred, Athalia, Ohio.....	29	Fruit tree stock.....	5
Kennedy, Wade B., Langsville, Ohio.....	143	Small fruit plants.....	2
King, Frank, New Carlisle, Ohio.....	111	Small fruit plants.....	2
Kissel, A., Greenville, Ohio.....	320	Small fruit plants.....	4
Klingensmith, Earl, Washingtonville, Ohio.....	300	Small fruit plants.....	2
Knauf, Frank, Canfield, Ohio.....	242	Fruit trees.....	1
Knopp, A. B., Columbiana, Ohio.....	81	Small fruit plants.....	5
Knopp, N. H., Washingtonville, Ohio.....	310	Small fruit plants.....	2
Knopp, Christopher, Clayton, Ohio.....	264	Small fruit plants.....	$\frac{1}{2}$
Kohankie, Julius, Painesville, Ohio.....	288	Ornamentals.....	2 $\frac{1}{2}$
Kohankie, Martin, Painesville, Ohio.....	7	Ornamentals.....	4
Kohankie, H. & Son, Painesville, Ohio.....	22	General nursery stock.....	75
Kolthoff, Fred, Cincinnati, Ohio.....	283	Ornamentals.....	
Kumler, H. L., Baltimore, Ohio.....	162	Small fruit plants.....	2
Kuth, J. S., New Paris, Ohio.....	206	Small fruit plants.....	4
Lambert, Dr. A. L., Dayton, Ohio.....	259	Ornamentals.....	
Lampe, G. R., Pt. Clinton, Ohio.....	157	Fruit trees.....	1
Law, H. E., Delaware, Ohio.....	291	Small fruit plants.....	5
Lear, James H., Coshocton, Ohio.....	240	General nursery stock.....	2

LIST OF OHIO NURSERYMEN—Continued.

Name and Address of Owner and Nursery.	Certificate No.	Kind of Stock.	Acres of Stock.
Leatherman, Chas., Wadsworth, Ohio.....	94	Small fruit plants.....	1
Leedle Floral Co., Springfield, Ohio.....	142	Ornamentals.....	$\frac{1}{2}$
Lewis, H. W., Bidwell, Ohio.....	57	Fruit trees and small fruit plants.....	2
Light, Capt. F. W., Perry, Ohio.....	85	Small fruit plants.....	1
Livingston Seed Co., Columbus, Ohio.....	69	General nursery stock.....	4
Lockwood, E. A., Perry, Ohio.....	273	Small fruit plants.....	$\frac{1}{2}$
Lower, Iasiah, Barberton, Ohio.....	260	General nursery stock.....	1
Lynn, James L., Barnesville, Ohio.....	250	Small fruit plants.....	5
Lynn, E. E., Salesville, Ohio.....	190	General nursery stock.....	4
Manchester & Joiner, Perry, Ohio.....	182	Small fruit plants.....	2
Mantle & Mantle, Painesville, Ohio.....	296	Small fruit plants.....	1
Marshall, Sylvester, Athens, Ohio.....	294	Small fruit plants.....	3
Marshall, W. D., Franklin Square, Ohio.....	229	Small fruit plants.....	3
Martin, A. S., Ravenna, Ohio.....	308	Small fruit plants.....	$\frac{1}{2}$
McBeth, E., Kingston, Ohio.....	200	Fruit trees.....	$\frac{1}{2}$
McCullough Sons, J. M., Cincinnati, Ohio.....	49	Ornamental stock.....	4
McDaniel, John R., McConneville, Ohio.....	197	General nursery stock.....	1
McFarland, J. I., Farndale Fruit Farm, Lowell, Ohio.....	176	Small fruit plants.....	1
McGregor Bros., Springfield, Ohio.....	67	Ornamentals.....	1
McNary, T. W., Cambridge, Ohio.....	126	General nursery stock.....	2
McQueen, Jacob, Baltic, Ohio.....	62	Small fruit plants.....	$\frac{1}{2}$
McVitty, James, Perry, Ohio.....	235	Fruit trees.....	6
Mellen, Geo. H. Co., Springfield, Ohio.....	66	Ornamentals.....	4
Merkel & Son, C., Mentor, Ohio.....	35	Ornamentals.....	$3\frac{1}{2}$
Merriman & Bartholomew, Perry, Ohio.....	202	Ornamentals.....	5
Merriman & Salkeld, Perry, Ohio.....	244	Fruit trees.....	5
Miami Valley Nursery, P. Bohlander & Son, Tippes- canoe City, Ohio.....	24	Ornamentals.....	5
Middlestead, Edward, Perry, Ohio.....	251	Small fruit plants.....	2
Miller, David D., Millersburg, Ohio.....	295	Fruit trees.....	
Miller, John, White Oak, Ohio.....	231	General nursery stock.....	$1\frac{1}{2}$
Mitchell, W. F. & Son, Beverly, Ohio.....	183	General nursery stock.....	25
Miller, George G., Dayton, Ohio.....	83	Ornamentals.....	
Molden, John, Barnesville, Ohio.....	135	Small fruit plants.....	4
Mooney, E. K., Maderia, Ohio.....	13	General fruit stock.....	7
Moore, S. R., Zanesville, Ohio.....	96	General nursery stock.....	8
Moore, A. B., Proctorville, Ohio.....	215	Small fruit plants.....	4
Morris & Son, W. M., Carpenter, Ohio.....	20	Fruit tree stock.....	$4\frac{1}{2}$
Mox, Ed., Delphos, Ohio.....	258	General nursery stock.....	1
Muchmore, W. O., Fremont, Ohio.....	212	Small fruit plants.....	5
Murdick, William, Proctorville, Ohio.....	243	Fruit trees.....	$\frac{1}{2}$
Murphy, E. M., Lancaster, Ohio.....	158	Small fruit plants.....	4
Musselman, W. L., New Carlisle, Ohio.....	38	Small fruit plants.....	10
Naylor, H. S., Beloit, Ohio.....	248	Small fruit plants.....	2
Nicholas & Son, W. H., Proctorville, Ohio.....	269	Ornamentals.....	5
Noland, George T., Trimway, Ohio.....	261	General nursery stock.....	2
Noland, J. P., Peninsula, Ohio.....	163	Small fruit plants.....	5
Noland, J. A., East Akron, Ohio.....	184	Small fruit plants.....	$1\frac{1}{2}$
Noland, W. A., Frazesburg, Ohio.....	221	General nursery stock.....	
Norman, T. R., Painesville, Ohio.....	12	Ornamentals.....	18
Norton, H. G., Perry, Ohio.....	270	General nursery stock.....	5
Ohio Nursery & Supply Co., Elyria, Ohio.....	48	Ornamentals.....	48
Ohio Orchard Co., Columbus, Ohio.....	151	Small fruit plants.....	5
Ormiston, George H., Fleming, Ohio.....	204	General nursery stock.....	1
Osborn, C. L., Sidney, Ohio.....	121	General nursery stock.....	$\frac{1}{2}$
Peck, John, Perry, Ohio.....	74	Small fruit plants.....	2
Pemberton, C. H., Chesapeake, Ohio.....	306	Small fruit plants.....	5
Perry, G. R., Cambridge, Ohio.....	307	Small fruit plants.....	3
Pickett, A. R., Clyde, Ohio.....	47	General nursery stock.....	23
Plummer, D. P., Bellefontaine, Ohio.....	132	General nursery stock.....	2
Poe, G. H., Kenton, Ohio.....	43	Small fruit plants.....	$\frac{1}{2}$
Post & Cummings, Painesville, Ohio.....	292	Ornamentals.....	$\frac{1}{2}$
Postlethwaite, Selby, Barnesville, Ohio.....	119	Small fruit plants.....	12
Progress Nursery Co., Troy, Ohio.....	138	General nursery stock.....	2
Purdy, Newton, Glenmont, Ohio.....	144	Fruit trees.....	1
Quirk, B. F., Geneva, Ohio.....	285	Small fruit plants.....	$\frac{1}{2}$
Rathburn, E., Clyde, Ohio.....	193	Small fruit plants.....	2
Reeves, E. A., South Euclid, Ohio.....	108	General nursery stock.....	3
Reid, S. G., Wellston, Ohio.....	224	Fruit trees.....	$\frac{1}{2}$
Realer, M. O., Lima, Ohio.....	238	General nursery stock.....	
Riley, J. N., Washington C. H., Ohio.....	173	General nursery stock.....	5
Robertson, R. R., Norwalk, Ohio.....	34	Small fruit plants.....	2
Roemer, Albert, Philo, Ohio.....	175	Small fruit plants.....	$1\frac{1}{2}$
Rogers, H. C., Mechanicsburg, Ohio.....	214	Ornamental stock.....	5
Rollman, J. B., Jefferson, Ohio.....	86	Small fruit plants.....	$\frac{1}{2}$
Ross, E. H., Johnstown, Ohio.....	208	Small fruit plants.....	$\frac{1}{2}$
Roush, Eph., Lima, Ohio.....	127	General nursery stock.....	2
Rowland, W. W., Perry, Ohio.....	309	Small fruit plants.....	4
Rueb & Sons, A., Chillicothe, Ohio.....	252	General nursery stock.....	$3\frac{1}{2}$

LIST OF OHIO NURSERYMEN—Concluded.

Name and Address of Owner and Nursery.	Certificate No.	Kind of Stock.	Acres of Stock.
Sage, J. M., Chardon, Ohio.....	256	Fruit trees.....	1
Sawyer, Frank, Norwalk, Ohio.....	265	Ornamentals.....	1
Sawyer, Almon S., Mentor, Ohio.....	178	Small fruit plants.....	2
Shawnee Nurseries, Cridersville, Ohio.....	109	General nursery stock.....	4
Speck, D. S., Big Prairie, Ohio.....	298	Small fruit plants.....	1
Stackhouse & Son, S. W., N. Georgetown, Ohio.....	275	Small fruit.....	3
Stackhouse, Albert, Ashland, Ohio.....	56	Small fruit plants.....	1
Starbuck, Addison, Colerain, Ohio.....	122	General nursery stock.....	5
Stephens, A. P., Perry, Ohio.....	128	Fruit and ornamental stock.....	5
Stevens, Mark, Perry, Ohio.....	186	General nursery stock.....	3
Stine & Speed, Zanesville, Ohio.....	106	Fruit trees.....	4
Stoner, E. F., Dayton, Ohio.....	152	Small fruit plants.....	10
Storrs & Harrison, Painesville, Ohio.....	1	General nursery stock.....	700
Scarff, W. N., New Carlisle, Ohio.....	25	General nursery stock.....	100
Schmidt & Botley, Springfield, Ohio.....	76	General nursery stock.....	2
Shaner, W. R., Cutler, Ohio.....	177	Fruit trees.....	5
Siebensenthal, John, Nurseries, Dayton, Ohio.....	58	General nursery stock.....	10
Simonton, J. A., Ashland, Ohio.....	5	Small fruit plants.....	3
Slaughter, Jacob, Osborne, Ohio.....	155	Small fruit plants.....	8
Snyder, E. C., Bloomville, Ohio.....	267	General nursery stock.....	1
St. John, Edward, Bailaire, Ohio.....	313	Small fruit plants.....	3
Suter, Jasper, Proctorville, Ohio.....	189	Small fruit plants.....	1
Swart, G. J., Wauseon, Ohio.....	274	Small fruit plants.....	3
Sweet, G. N., Perry, Ohio.....	241	Small fruit plants.....	3
Symmes, W. W., Cincinnati, Ohio.....	219	Fruit trees.....	2
Teeter & Son, Fremont, Bellville, Ohio.....	71	Small fruit plants.....	2
Templeton, J. L., Proctorville, Ohio.....	41	Small fruit and fruit trees.....	2
Templin, M., Calla, Ohio.....	211	Small fruit plants.....	1
Tingley & Son, C. B., Mansfield, Ohio.....	16	Small fruit plants.....	4
Tiverton, Nursery, Chas. McDonald, Mt. Vernon, O.....	171	General nursery stock.....	3
Tompkins, C. L., Lakewood, Ohio.....	123	General nursery stock.....	3
Tower, C. W., Unionville, Ohio.....	297	Small fruit plants.....	2
Turner, O. P., Orwell, Ohio.....	321	Small fruit plants.....	3
Turner & Rawlings, Dexter, Ohio.....	14	Fruit tree stock.....	1
Turner & Co., J. A., Dexter, Ohio.....	27	Fruit tree stock.....	3
Uhrig, Peter, New Carlisle, Ohio.....	154	General nursery stock.....	7
Ullery, Harry, Dayton, Ohio.....	99	General nursery stock.....	14
Unterbuzer, W. F., Jacobsburg, Ky.....	179	General nursery stock.....	1
Vandervoort & Son, J. M., Wilmington, Ohio.....	216	General nursery stock.....	7
Veley, Alva, Delaware, Ohio.....	139	Small fruit plants.....	2
Vizzard, J. A., Perry, Ohio.....	233	Small fruit plants.....	5
Wagner Park Conservatory, Sidney, Ohio.....	100	General nursery stock.....	50
Walburn, T. J. & Co., Carpenter, Ohio.....	194	Fruit trees.....	2
Waldorf, C. T., Painesville, Ohio.....	287	Fruit trees.....	1
Watkins, E. D., Delta, Ohio.....	130	Small fruit plants.....	3
Webster, D. D., Portland, Ohio.....	236	General nursery stock.....	1
Welch, Mark, Painesville, Ohio.....	196	General nursery stock.....	40
Wellman, George, New Knoxville, Ohio.....	227	General nursery stock.....	2
Welty, C. C., Pandora, Ohio.....	40	Small fruit plants.....	2
Weitz Sons Co., Wilmington, Ohio.....	124	Ornamentals.....	5
Weidner, F. H., Valley City, Ohio.....	223	Small fruit plants.....	2
Weiner, John Jr., Middleport, Ohio.....	30	Small fruit plants.....	3
Werner Bros., Painesville, Ohio.....	206	Ornamentals.....	1
West, George T., Perry, Ohio.....	315	Small fruit plants.....	2
West, T. B., Perry, Ohio.....	136	General nursery stock.....	80
West, H. J., Perry, Ohio.....	312	Small fruit plants.....	1
West Park Nursery, Chas. Kramer, West Park, Ohio.....	311	General nursery stock.....	4
West Bros., Damascus, Ohio.....	217	General nursery stock.....	3
West, C. O., Perry, Ohio.....	317	Small fruit.....	3
West, J. M., Cynthiana, Ohio.....	191	General nursery stock.....	1
Westfall Bros., Carpenter, Ohio.....	36	Small fruit plants.....	2
Wetzel Bros., Painesville, Ohio.....	9	Ornamentals.....	6
Wetzel & Son, J. L., Painesville, Ohio.....	195	Ornamentals.....	1
Whitney Evergreen Nursery, Warren, Ohio.....	247	Ornamentals.....	5
Wilson, F. D., Geneva, Ohio.....	316	Small fruit plants.....	2
Wilson, George & Sons, Marysville, Ohio.....	148	General nursery stock.....	2
Wittman, H. H., New Paris, Ohio.....	120	Small fruit plants.....	2
Wood, Ed., Weston, Ohio.....	15	Ornamentals.....	1
Woodward, J. T., Cambridge, Ohio.....	276	Small fruit plants.....	1
Wooster Nursery, Wooster, Ohio.....	185	General nursery stock.....	3
Worman, Frank, Troy, Ohio.....	239	Small fruit plants.....	2
Wright, C. C., Clyde, Ohio.....	234	Small fruit plants.....	4
Wyss, Daniel, New Philadelphia, Ohio.....	78	General nursery stock.....	2
Xenia Star Nursery, Xenia, Ohio.....	190	General nursery stock.....	92
Yost, D. P., Lancaster, Ohio.....	145	Small fruits.....	1
Young, Charles, Winchester, Ohio.....	187	Small fruit plants.....	1
Zettler Company, Canton, Ohio.....	213	General nursery stock.....	2
Zinnia Ridge Nurseries, Piqua, Ohio.....	39	General nursery stock.....	2

LIST OF OHIO NURSERYMEN HOLDING OFFICIAL CERTIFICATES OF FUMIGATION.

1913.

Name and Address of Owner and Name of Nursery.	Certificate
Allen, W. A. & Sons, Geneva, Ohio.....	23
Barnes Nurseries, Cincinnati, Ohio.....	25
Bernard, A. F., Painesville, Ohio.....	14
Call, S. W., Perry, Ohio.....	16
Carr's Nurseries, L. M., Yellow Springs, Ohio.....	3
Champion, H. J. & Sons, Perry, Ohio.....	24
Clyde Nursery, Clyde, Ohio.....	11
Cole, W. B., Painesville, Ohio.....	13
Crain, J. N., Bethel, Ohio.....	27
Ernst Nursery, Moscow, Ohio.....	21
Eureka Nurseries, Troy, Ohio.....	9
Fairmount Nursery, Troy, Ohio.....	8
Farmers Nursery, Troy, Ohio.....	6
French Nursery, Clyde, Ohio.....	10
Fremont Nursery, Fremont, Ohio.....	12
Kohankie, Henry & Son, Painesville, Ohio.....	17
Kohankie, Martin, Painesville, Ohio.....	18
Merriman & Bartholomew, Perry, Ohio.....	29
Miami Valley Nursery, Tippecanoe City, Ohio.....	5
Musselman, W. L., New Carlisle, Ohio.....	26
Progress Nursery, Troy, Ohio.....	7
Scarff, W. N., New Carlisle, Ohio.....	22
Spring Hill Nursery, Tippecanoe City, Ohio.....	4
Stevens, Mark, Perry, Ohio.....	28
Storrs & Harrison Company, Painesville, Ohio.....	1
Welch, Mark, Painesville, Ohio.....	10
West, T. B., Perry, Ohio.....	15
Wetzel Bros., Painesville, Ohio.....	20
Xenia Star Nursery, Xenia, Ohio.....	2

LIST OF CERTIFIED AGENTS.

1913.

Name Agent.	Certificate No.	Name and Address of Nursery Represented.
Amore, John M.....	6	Greening Nursery Co., Monroe, Mich.
Ames, Alva.....	209	Greening Nursery Co., Monroe, Mich.
Anderson, Elmer.....	167	Greening Nursery Co., Monroe, Mich.
Anderson, John M.....	191	Greening Nursery Co., Monroe, Mich.
Anson, George H.....	115	J. M. Vandervoort, New Antioch, Ohio.
Armstrong, James A.....	123	Stark Bros., Louisiana, Mo.
Arnott, W. H.....	275	Knight & Bostwick, Newark, N. Y.
Arnott, W. H.....	289	Gold Nursery Co., Mason City, W. Va.
Augsburger, Aaron.....	320	C. M. Hobbs & Son, Bridgeport, Ind.
Auld, James T.....	221	Gold Nursery Co., Mason City, W. Va.
Barthost, John.....	343	Wm. C. Moore & Co., Newark, N. Y.
Barr, John.....	169	I. E. Ilgenfritz, Monroe, Mich.
Barnes, P. N.....	98	A. R. Pickett, Clyde, Ohio.
Barnhart, S. E.....	279	Brown Bros., Rochester, N. Y.
Bauer, J. M.....	156	Mutual Nurseries, Monroe, Mich.
Baumhart, George B.....	150	Greening Nursery Co., Monroe, Mich.
Bechdolt, W. A.....	276	Farmers Nursery Co., Troy, Ohio.
Bechdolt, W. A.....	295	I. E. Ilgenfritz, Monroe, Mich.
Bedford, M. T.....	144	I. E. Ilgenfritz, Monroe, Mich.
Beeman, H. K.....	305	Wm. C. Moore Co., Newark, N. Y.
Bell, George O.....	39	Greening Nursery Co., Monroe, Mich.
Benner, B. T. & Son.....	143	Greening Nursery Co., Monroe, Mich.
Bennett, William G.....	90	Weber Nursery Co., Greenfield, Ind.
Beinsinger, Wm.....	205	Greening Nursery Co., Monroe, Mich.
Bettschen, John.....	177	Greening Nursery Co., Monroe, Mich.
Biechler, C. F.....	146	Greening Nursery Co., Monroe, Mich.
Bishop, J. H.....	28	Farmers Nursery Co., Troy, Ohio.
Blaine, Oren.....	225	Chase Nursery, Geneva, N. Y.
Blasey, H. W.....	31	Greening Nursery Co., Monroe, Mich.
Blue, C. H.....	312	Farmers Nursery, Troy, Ohio.

LIST OF CERTIFIED AGENTS—Continued.

Name Agent.	Certificate No.	Name and Address of Nursery Represented.
Boehmer, John.....	302	Wm. C. Moore, Newark, N. Y.
Bolander, A. W.....	203	Greening Nursery Co., Monroe, Mich.
Bolander, John.....	268	A. R. Pickett, Clyde, Ohio.
Bonnell, F. T.....	59	Penn. Nursery Co., Girard, Pa.
Bordner, Aaron.....	179	Greening Nursery Co., Monroe, Mich.
Borgending, J. T.....	303	Wm. C. Moore, Newark, N. Y.
Bowman, D. C.....	299	Farmers Nursery, Troy, Ohio.
Boyer, James.....	220	C. W. Stewart, Newark, N. Y.
Bradfield, J. W.....	68	Stark Bros., Louisiana, Mo.
Brady, J. T.....	49	Knight & Bostwick, Newark, N. Y.
Bragunier, J. C.....	111	J. S. Burton, Casstown, Ohio.
Broderson, B. L.....	38	Greening Nursery Co., Monroe, Mich.
Brower, W. H.....	110	P. Bohlander & Son, Tippecanoe City, Ohio.
Brown, Theodore.....	309	A. R. Pickett, Clyde, Ohio.
Brundage, H. E.....	327	Greening Nursery Co., Monroe, Mich.
Budd, John.....	8	Michigan Nursery Co., Monroe, Mich.
Buell, Wm. T.....	7	Greening Nursery Co., Monroe, Mich.
Buker, Alpha.....	234	Stark Bros., Louisiana, Mo.
Bullinger, J. C.....	152	H. S. Day, Fremont, Ohio.
Burt, Charles.....	57	W. B. Cole, Painesville, Ohio.
Calihan, A. L.....	255	W. T. Mitchell, Beverly, Ohio.
Calvert, S. M.....	261	A. R. Pickett, Clyde, Ohio.
Campbell, J. D.....	138	Greening Nursery Co., Monroe, Mich.
Campbell, Joshua.....	89	Wm. J. Reilly, Danville, Ky.
Campe, Adolph.....	269	Greening Nursery Co., Monroe, Mich.
Carpenter, W. S.....	160	I. E. Ilgenfritz, Monroe, Mich.
Carrell, G. W.....	97	Greening Nursery Co., Monroe, Mich.
Chillson, M. D.....	208	Spaulding Nursery & Orch. Co., Springfield, Ill.
Clark, A. M.....	342	French Nursery Co., Clyde, Ohio.
Cole, Elmer.....	235	A. R. Pickett, Clyde, Ohio.
Conrad & Sons, A. G.....	119	Ernst Nurseries, Moscow, Ohio.
Cooperrider, J. A.....	341	A. B. French, Clyde, Ohio.
Cowgill, George A.....	340	Rice Bros., Geneva, N. Y.
Coxey, Robert P.....	248	W. T. Mitchell & Son, Beverly, Ohio.
Crawford, George.....	151	I. E. Ilgenfritz, Monroe, Mich.
Creveston, F. E.....	5	Farmers Nursery, Troy, Ohio.
Crooks, Amos.....	290	Stark Bros., Louisiana, Mo.
Cross, F. M.....	288	A. R. Pickett, Clyde, Ohio.
Crow, A. E.....	283	Stark Bros., Louisiana, Mo.
Crumrine, Minor.....	336	Wm. C. Moore Co., Newark, N. Y.
Curtis, John S.....	101	Brown Bros., Rochester, N. Y.
Dalton, T. T.....	103	La Pointe Nursery Co., Geneva, N. Y.
Dannemiller, Michael.....	58	Michigan Nursery Co., Monroe, Mich.
Darby, Thos. J.....	324	Greening Nursery, Monroe, Mich.
Darby, Sylvester.....	53	W. T. Mitchell & Son, Beverly, Ohio.
Daugherty, H. B.....	76	M. H. Harmon Co., Geneva, N. Y.
Dean, William S.....	79	Western N. Y. Nursery Co., Rochester, N. Y.
Dellinger, W. M.....	30	H. S. Day, Fremont, Ohio.
Dellinger, F. E.....	17	Spring Hill Nursery, Tippecanoe City, Ohio.
Denney, Obediah.....	3	Gold Nursery Co., Mason City, W. Va.
Dennis, Harvey.....	246	W. T. Mitchell & Son, Beverly, Ohio.
Depenbroch, Rudolph.....	296	Farmers Nursery, Troy, Ohio.
Derry, H.....	294	W. T. Mitchell, Beverly, Ohio.
Detterman, Wade.....	345	A. R. Pickett, Clyde, Ohio.
Donahay, P. M.....	161	Stark Bros., Louisiana, Mo.
Dorr, Arthur D.....	318	Stark Bros., Louisiana, Mo.
Drennan, J. D.....	12	L. E. Ilgenfritz Sons, Monroe, Mich.
Ebrite, J. M.....	184	Greening Nursery Co., Monroe, Mich.
Ebright, E. E.....	113	F. E. Groves & Co., Rochester, N. Y.
Edgar, W. W.....	47	Chase Nursery Co., Geneva, N. Y.
Eicher, M. A.....	182	Greening Nursery Co., Monroe, Mich.
Eifert, Wm. H.....	162	Greening Nursery Co., Monroe, Mich.
Elick, Wm.....	267	Chestnut Ridge Nursery, Canal Winchester, Ohio.
Emerick, I. E.....	186	Salem Nurseries, Clayton, Ohio.
Emerson, Rudolph.....	121	A. R. Pickett, Clyde, Ohio.
Erwin, M. S.....	252	W. T. Mitchell & Son, Beverly, Ohio.
Esselbach, J. H.....	27	I. E. Ilgenfritz Sons, Monroe, Mich.
Fackler, P. H.....	183	I. E. Ilgenfritz, Monroe, Mich.
Fillman, J. J.....	211	Stark Bros., Louisiana, Mo.
Finefrock, A. A.....	334	French Nursery Co., Clyde, Ohio.
Fink, H. P.....	328	M. H. Harmon, Geneva, N. Y.
Fink, W. M.....	24	G. S. Pickett & Son, Clyde, Ohio.
Fisher, B. F.....	125	Farmers Nursery Co., Troy, Ohio.
Flater, Henry.....	34	Fremont Nursery, Fremont, Ohio.
Foor, J. W.....	136	Greening Nursery Co., Monroe, Mich.
Flory, George A.....	131	Greening Nursery Co., Monroe, Mich.
Ford, M. O.....	201	I. E. Ilgenfritz, Monroe, Mich.
Frazier, D. B.....	60	Michigan Nursery Co., Monroe, Mich.
Friedley, A. M.....	105	A. R. Pickett, Clyde, Ohio.

LIST OF OHIO NURSERYMEN—Continued.

Name Agent.	Certificate No.	Name and Address of Nursery Represented.
Frohm, A. C.	64	P. Bohlander & Son, Tippecanoe City, Ohio.
Frye, A. G.	278	Greening Nursery Co., Monroe, Mich.
Frye, George F.	20	I. E. Ilgenfritz Sons, Monroe, Mich.
Fulkerson, A. G.	292	W. T. Mitchell, Beverly, Ohio.
Gander, S. W.	314	Wm. C. Moore & Co., Newark, N. Y.
Garber, S. D.	44	Penn Nursery Co., Girard, Pa.
Garman, J. W.	71	J. M. Vandervoort & Son, New Antioch, O.
Gaumer, J. R.	229	A. R. Pickett, Clyde, Ohio.
Gearhart, H. M.	286	Greening Nursery Co., Monroe, Mich.
Geiger, Phillip.	270	Wm. C. Moore & Co., Newark, N. Y.
Gerber, W. G.	210	Mutual Nurseries, Monroe, Mich.
Gerber, G. J.	43	Greening Nursery Co., Monroe, Mich.
Gessaman, S. G.	56	Wm. Dysinger, Phoneton, Ohio.
Gilbert, A. O.	84	Western N. Y. Nur. Co., Rochester, N. Y.
Gintert, Charles.	329	T. B. Best, Perry, Ohio.
Glasgow, S. G.	157	J. M. Vandervoort & Son, Wilmington, Ohio.
Gordon, Peter.	102	Cutler & Downing Co., Benton Harbor, Mich.
Gossman, George.	35	Greening Nursery, Monroe, Mich.
Graham, C. C.	251	W. T. Mitchell & Son, Beverly, Ohio.
Grandy, Frank.	137	Greening Nursery Co., Monroe, Mich.
Griffin, W. V.	140	Barnes Nurseries, Cincinnati, Ohio.
Grulick, C. C.	16	P. Bohlander & Son, Tippecanoe City, Ohio.
Grummon, F.	265	A. R. Pickett, Clyde, Ohio.
Gump, Nick.	271	Wm. C. Moore, Newark, N. Y.
Gutridge, C. B.	250	W. T. Mitchell & Son, Beverly, Ohio.
Hager, Dan.	116	French Nursery, Clyde, Ohio.
Haigh, S. V.	180	French Nursery, Clyde, Ohio.
Hanan, H. V.	280	H. S. Day, Fremont, Ohio.
Hartman, S. C.	18	Perry Nursery Co., Rochester, N. Y.
Hartzell, Joseph.	174	Greening Nursery Co., Monroe, Mich.
Hathaway, C. M.	33	Clark Nursery, Waterloo, N. Y.
Hauer, Michael.	213	M. Barnes & Co., Hamilton, Ohio.
Haworth, Orin.	135	Greening Nursery Co., Monroe, Mich.
Heskett, N. V.	297	A. R. Pickett, Clyde, Ohio.
Hill, R. F.	301	Clyde Nursery, Clyde, Ohio.
Hill, Henry.	122	Baird & Hall, Troy, Ohio.
Hiller, S. R.	1	Wm. C. Moore Co., Newark, N. Y.
Hiskey, James W.	206	Greening Nursery Co., Monroe, Mich.
Hizar, C. L.	256	Stark Bros., Louisiana, Mo.
Hoag, Adam.	238	French Nursery, Clyde, Ohio.
Hoerr, Victor.	281	Greening Nursery, Monroe, Mich.
Hoffman, J. C.	23	Saddler Bros., Bloomington, Ill.
Holloway, David.	232	Stark Bros., Louisiana, Mo.
Holmes, O. C.	313	A. R. Pickett, Clyde, Ohio.
Holtshouse, W. G.	287	Greening Nursery, Monroe, Mich.
Hoover, C. F.	62	Spring Hill Nursery, Tippecanoe City, Ohio.
Hopkins, E. L.	118	A. R. Pickett, Clyde, Ohio.
Hopkins, R. E.	85	Western N. Y. Nursery Co., Rochester, N. Y.
Horton, E. J.	155	Greening Nursery Co., Monroe, Mich.
Houts, Wm.	282	Rice Bros. & Co., Geneva, N. Y.
Hubbard, Albert.	142	Star Bros., Louisiana, Mo.
Hummel, Wm. J.	85	Clyde Nursery, Clyde, Ohio.
Hunter, S. M.	192	Xenia Star Nursery, Xenia, Ohio.
Huttinger, Albert.	124	I. E. Ilgenfritz Sons, Monroe, Mich.
Ickes, J. W.	231	A. R. Pickett, Clyde, Ohio.
Ingle, James W., Sr.	188	Greening Nursery Co., Monroe, Mich.
Jackman, E. M.	141	I. E. Ilgenfritz, Monroe, Mich.
Jamison, Mrs. M. M.	104	Fairview Nursery, Rochester, N. Y.
Jenkins, Cyrus.	145	Greening Nursery, Monroe, Mich.
Johnson, Jas. S.	36	A. B. French, Clyde, Ohio.
James, F. J.	331	Greening Nursery Co., Monroe, Mich.
Jones, C. R.	123	Farmers Nursery Co., Troy, Ohio.
Kannel, H.	260	A. R. Pickett, Clyde, Ohio.
Kardatzke, Herman.	215	Mutual Nurseries, Monroe, Mich.
Kaufman, F. H.	228	Knight & Bostwick, Newark, N. Y.
Kauth, Peter.	99	Wm. Moore & Co., Newark, N. Y.
Keller, E. M.	149	I. E. Ilgenfritz Sons, Monroe, Mich.
Kepler, J. F.	298	Farmers Nursery Co., Troy, Ohio.
Keyes, B. F.	321	A. R. Pickett, Clyde, Ohio.
King, John.	66	Western N. Y. Nursery Co., Rochester, N. Y.
Kingley, L. C.	258	French Nursery, Clyde, Ohio.
Kipton, W. W.	173	Stark Bros., Louisiana, Mo.
Kirby, S. E.	273	A. R. Pickett, Clyde, Ohio.
Knight, C. L.	20	Mutual Nursery Co., Monroe, Mich.
Knox, Fred.	214	I. E. Ilgenfritz, Monroe, Mich.
Knox, John.	148	Stark Bros., Louisiana, Mo.
Koogle, C. H.	304	A. R. Pickett, Clyde, Ohio.
Kopl, G. N.	73	Ino. Siebenthaler, Dayton, Ohio.
Kopp, J. H.	166	Greening Nursery Co., Monroe, Mich.

LIST OF CERTIFIED AGENTS—Continued.

Name Agent.	Certificate No.	Name and Address of Nursery Represented.
Kraemer, Peter	40	I. E. Ilgenfritz Sons, Monroe, Mich.
Lachmiller, Geo. W.	337	Wm. C. Moore Co., Newark, N. Y.
Latham, A. H.	164	Greening Nursery Co., Monroe, Mich.
Law, Wm.	2	I. E. Ilgenfritz Sons, Monroe, Mich.
Leasure, H. C.	125	Farmers Nursery Co., Troy, Ohio.
Leasure, D.	127	Farmers Nursery Co., Troy, Ohio.
Lehman, Clinton	61	John Siebenthaler, Dayton, Ohio.
Lepley, Frank B.	175	I. E. Ilgenfritz Sons, Monroe, Mich.
Lewis, Ellis	193	J. M. Vandervoort & Son, Wilmington, Ohio.
Lightle, M. E.	236	J. M. Vandervoort & Son, Wilmington, Ohio.
Limbirt, S. P.	154	Greening Nursery Co., Monroe, Mich.
Linhard, Frank K.	72	Stark Bros., Louisiana, Mo.
Litzenberg, Jos.	108	Stark Bros., Louisiana, Mo.
Ljninger, Amos, Esq.	197	Mutual Nurseries, Monroe, Mich.
Lindsey, Lafayette	196	Greening Nursery, Monroe, Mich.
Long, Noah, Sr.	117	C. W. Stuart & Co., Newark, N. Y.
Lowry, H. A.	315	Emmons & Co., Newark, N. Y.
Luak, Rev. J. D.	158	Greening Nursery Co., Monroe, Mich.
Mackey, L. D.	308	A. R. Pickett, Clyde, Ohio.
Mellet, W. W.	243	W. T. Mitchell & Son, Beverly, Ohio.
Malloy, J. C.	216	J. M. Vandervoort, Wilmington, Ohio.
Malloy, Mrs. M. K.	48	M. H. Harmon, Geneva, N. Y.
Malone, W. M.	132	Xenia Star Nursery, Xenia, Ohio.
Manahan, E. B.	332	Knight & Bostwick, Newark, N. Y.
Markland, Oliver H.	63	M. Barnes & Co., Cincinnati, Ohio.
Markley, C. A.	109	Greening Nursery Co., Monroe, Mich.
Massie, A. S.	22	I. E. Ilgenfritz Sons, Monroe, Mich.
Mattox, John W.	233	Stark Bros., Louisiana, Mo.
Mauk, Jacob	55	I. E. Ilgenfritz, Monroe, Mich.
Mauts, Wm.	254	W. T. Mitchell, Beverly, Ohio.
Maxwell, S. B.	134	Greening Nursery Co., Monroe, Mich.
McAdams, John	139	Greening Nursery Co., Monroe, Mich.
McBride, L. S.	338	Wm. C. Moore, Newark, N. Y.
McCann, W. C.	199	Greening Nursery Co., Monroe, Mich.
McColley, C. W.	37	I. E. Ilgenfritz Sons, Monroe, Mich.
McCormick, M. C.	78	Clyde Nursery, Clyde, Ohio.
McElfresh, Wm. H.	249	W. T. Mitchell & Son, Beverly, Ohio.
McKnight, J. R.	94	Greening Nursery Co., Monroe, Mich.
McLaughlin, Ellis	67	Penn Nursery Co., Girard, Pa.
McNary, J. C.	19	Knight & Bostwick, Newark, N. Y.
McPeak, C. O.	293	W. T. Mitchell, Beverly, Ohio.
Mead, Levi	171	Greening Nursery Co., Monroe, Mich.
Miller, I. N.	95	J. M. Vandervoort & Son, New Antioch, O.
Miller, James B.	96	Stark Bros., Louisiana, Mo.
Miller, John	93	H. S. Day, Fremont, Ohio.
Miller, H. L.	46	Gold Bros., Mason City, W. Va.
Miller, John B.	32	John Siebenthaler, Dayton, Ohio.
Milligan, Wm. C.	86	E. E. Lynn, Salesville, Ohio.
Mills, Lloyd	112	French Nursery, Clyde, Ohio.
Mills, Chas. J.	42	Salem Nurseries, Clayton, Ohio.
Milner, O. F.	194	I. E. Ilgenfritz, Monroe, Mich.
Mohn, J. E.	15	I. E. Ilgenfritz, Monroe, Mich.
Morris, D. L.	253	W. T. Mitchell & Son, Beverly, Ohio.
Morris, Mordica	244	W. T. Mitchell & Son, Beverly, Ohio.
Morris, C. A.	247	W. T. Mitchell, Beverly, Ohio.
Morris, W. J.	222	Greening Nursery Co., Monroe, Mich.
Morris, Aaron	230	Chase Nursery, Geneva, N. Y.
Morrison, Chas. A.	291	W. T. Mitchell & Son, Beverly, Ohio.
Morrow, J. H.	120	N. Buethly, Clayton, Ohio.
Mulford, S. A.	69	Farmers Nursery Co., Troy, Ohio.
Murphy, L. J.	224	Chase Nurseries, Geneva, N. Y.
Noble, Edward	268	Storrs & Harrison, Painesville, Ohio.
Oakes, Fernando	80	Greening Nursery, Monroe, Mich.
Oehrs, Carl	323	I. E. Ilgenfritz, Monroe, Mich.
Painter, B. F.	240	A. R. Pickett, Clyde, Ohio.
Pape, Louis V.	114	Stark Bros., Louisiana, Mo.
Patterson, J. S.	223	Greening Nursery Co., Monroe, Mich.
Phouts, Lycurgus	9	I. E. Ilgenfritz Sons, Monroe, Mich.
Phillis, Ross	100	J. B. Nellis & Co., Rochester, N. Y.
Plettner, J. N.	14	I. E. Ilgenfritz, Monroe, Mich.
Plettner, Henry	87	T. Bohlander & Son, Tippecanoe City, Ohio.
Popp, George	129	T. B. West, Perry, Ohio.
Prose, A. H.	159	Greening Nursery Co., Monroe, Mich.
Quinn, John W.	277	W. G. Cobb & Co., Franklin, Mass.
Randolph, A. H.	227	A. R. Pickett, Clyde, Ohio.
Randolph, S. L.	300	Farmers Nursery Co., Troy, Ohio.
Rape, T. C.	317	Farmers Nursery Co., Troy, Ohio.
Raub, H. A.	91	C. L. Van Wagen, Newark, N. Y.
Rau, D. W. C.	107	Greening Nursery Co., Monroe, Mich.
Reeves, E. B.	133	J. M. Vandervoort, Wilmington, Ohio.

LIST OF CERTIFIED AGENTS—Concluded.

Name Agent.	Certificate No.	Name and Address of Nursery Represented.
Renier, O. E.	195	Greening Nursery Co., Monroe, Mich.
Rice, C. J.	308	Mutual Nurseries, Monroe, Mich.
Rice, C. J.	163	Mutual Nurseries, Monroe, Mich.
Riegler, L. D.	316	A. R. Pickett, Clyde, Ohio.
Riley, John T.	319	P. Bohlander & Son, Tippecanoe City, Ohio.
Roads, C. B.	4	I. E. Ilgenfritz, Monroe, Mich.
Roberds, N. D.	239	J. M. Vandervoort, Wilmington, Ohio.
Rodhouse, T. F.	181	Greening Nursery Co., Monroe, Mich.
Rodhouse, T. F.	92	A. R. Pickett, Clyde, Ohio.
Rowe, Jerome	245	W. T. Mitchell & Son, Beverly, Ohio.
Rowe, J. A.	178	Mutual Nurseries, Monroe, Mich.
Rowlands, Wm. R.	26	The Clyde Nursery, Clyde, Ohio.
Rupp, Chas.	339	Wm. C. Moore & Co., Newark, N. Y.
Rupp, J. A.	226	Mutual Nurseries, Monroe, Mich.
Saunders, J. P.	25	Chase Nursery, Geneva, N. Y.
Schaffer, H. P.	11	I. E. Ilgenfritz Sons Co., Monroe, Mich.
Schnmyr, Russell N.	200	I. E. Ilgenfritz Sons, Monroe, Mich.
Schweitzer, W.	187	Stark Bros., Louisiana, Mo.
Semple, E. P.	326	E. C. Morley, Youngstown, Ohio.
Shields, G. W.	207	J. M. Vandervoort & Son, Wilmington, Ohio.
Smith, W. T.	168	Mutual Nursery, Monroe, Mich.
Smith, D. J.	165	I. E. Ilgenfritz Sons, Monroe, Mich.
Smith, S. K.	272	Farmers Nursery Co., Tippecanoe City, O.
Smith, D. J. B.	21	Saddler Bros., Bloomington, Ill.
Smith, Homer	242	W. T. Mitchell & Son, Beverly, Ohio.
Smith, Phillip	322	Greening Nursery Co., Monroe, Mich.
Smith, Mike	65	H. S. Day, Fremont, Ohio.
Sausaman, B. F.	54	I. E. Ilgenfritz, Monroe, Mich.
Sample, L. T.	77	Xenia Star Nursery, Xenia, Ohio.
Shafer, John	189	Greening Nursery Co., Monroe, Mich.
Shroyer, Daniel	178	Greening Nursery Co., Monroe, Mich.
Singer, Hobart	284	Knight & Bostwick, Newark, N. Y.
Smith, J. R.	172	Greening Nursery Co., Monroe, Mich.
Snyder, Wm. H.	170	I. E. Ilgenfritz, Monroe, Mich.
Sollenbarger, J. J.	218	Farmers Nursery Co., Troy, Ohio.
Spitler, Levi	307	C. W. Stuart & Co., Newark, N. Y.
Starry, H. A.	52	Brown Bros., Rochester, N. Y.
Stermer, James	10	J. W. Schuette Co., St. Louis, Mo.
Stine, Theo. M.	285	M. Barnes & Co., Cincinnati, Ohio.
Strausbaugh, Jos.	81	Clyde Nursery, Clyde, Ohio.
Straussell, J. T.	204	Barnes Nurseries, Cincinnati, Ohio.
Studer, T. W.	325	I. E. Ilgenfritz, Monroe, Mich.
Soule, M. F.	75	L. L. May & Co., St. Paul, Minn.
Switzer, Frederick S.	219	Greening Nursery Co., Monroe, Mich.
Switzer, S.	311	Knight & Bostwick, Newark, N. Y.
Symmons, H. E.	344	H. S. Day, Fremont, Ohio.
Teague, Chas. E.	185	Greening Nursery Co., Monroe, Mich.
Terry, J. J.	259	French Nursery, Clyde, Ohio.
Thompson, J. A.	237	A. R. Pickett, Clyde, Ohio.
Tipton, W. E.	212	Greening Nursery Co., Monroe, Mich.
Titworth, W.	80	Greening Nursery Co., Monroe, Mich.
Trainer, Mathew	45	Gold Nursery Co., Mason City, W. Va.
Truax, M. L.	241	W. T. Mitchell & Son, Beverly, Ohio.
Truax, W. H.	263	A. R. Pickett, Clyde, Ohio.
Uhrig, Leonard	50	Jno. Siebenthaler, Dayton, Ohio.
Vandervoort, J. W.	198	J. M. Vandervoort & Son, Wilmington, Ohio.
Vollmer, Christ.	153	H. S. Day, Fremont, Ohio.
Vowles, George W.	264	H. J. Champion & Son, Perry, Ohio.
Wagner, Joseph	147	Greening Nursery Co., Monroe, Mich.
Wampool, A. W.	51	Saddler Bros., Bloomington, Ill.
Waugh, A. L.	257	Stark Bros., Louisiana, Mo.
Weeks, C. W.	82	C. W. Stewart Co., Newark, N. Y.
Wharton, H. F.	335	A. R. Pickett, Clyde, Ohio.
White, G. H.	130	French Nursery, Clyde, Ohio.
Whitley, R. L.	83	J. M. Vandervoort, Wilmington, Ohio.
Wightman, O. L.	330	Wm. C. Moore Co., Newark, N. Y.
Wilber, J. A.	13	I. E. Ilgenfritz, Monroe, Mich.
Wilson, Allen F.	195	Stark Bros., Louisiana, Mo.
Williams, Jas.	262	Farmers Nursery Co., Troy, Ohio.
Williams, J. H.	70	Spaulding Nursery & Orch. Co., Springfield, Ill.
Williams, John S.	74	Brown Bros. Co., Rochester, N. Y.
Winegarner, Stanley T.	274	A. R. Pickett, Clyde, Ohio.
Wonder, George F.	217	I. E. Ilgenfritz, Monroe, Mich.
Yates, Levi	190	Greening Nursery Co., Monroe, Mich.
Younce, D. M.	310	Michigan Nursery Co., Monroe, Mich.
Young, J. H.	106	C. M. Hobbs & Son, Bridgeport, Ind.
Zeiters, D. H.	202	I. E. Ilgenfritz, Monroe, Mich.
Zerck, Chas. J.	41	T. B. West, Perry, Ohio.

LIST OF CERTIFIED DEALERS.

1913.

Name of Dealer.	Certificate No.	Name and Address of Nursery Represented.
Biehl, Henry.....	27	H. S. Day, Fremont, Ohio. Ornamental Nurseries, Painesville, Ohio.
Bloom, S. N.....	15	Storrs & Harrison, Painesville, Ohio.
Brosius, T. G.....	32	H. S. Day, Fremont, Ohio. German Nursery, Beatrice, Neb.
Condon, Philip.....	10	M. Barnes Co., Cincinnati, Ohio.
Darling, Irvin C.....	2	W. B. Cole, Painesville, Ohio.
Devore, John.....	6	H. S. Day, Fremont, Ohio. W. B. Cole, Painesville, Ohio.
Freeman & Kreitzer.....	7	P. Bohlander & Son, Tippecanoe City, O. Farmers Nursery, Troy, Ohio.
Frink, W. M.....	8	Brown Bros., Rochester, N. Y. H. Kohankie, Painesville, Ohio.
Gesman & Son, U. G.....	16	S. W. Call, Perry, Ohio. W. M. Dysinger, Tippecanoe City, Ohio.
Gettle, Samuel.....	3	W. N. Scarff, New Carlisle, Ohio. P. Bohlander, Tippecanoe City, Ohio.
Goode, Amos.....	31	Storrs & Harrison, Painesville, Ohio. W. B. Cole, Painesville, Ohio.
Grammer, Chas. E.....	9	Allen Bros., Paw Paw, Mich.
Greenfield & Son, A. B.....	12	M. F. Barnes, Hamilton, Ohio.
Hastings, H. G. & Co.....	20	P. Bohlander, Tippecanoe City, Ohio.
Lang, Frank.....	5	Leo Wells, Wilmington, Ohio.
Lannert, George.....	4	John Siebenthaler, Dayton, Ohio.
Lindacher, Chas.....	11	Goode & Reese Co., Springfield, Ohio.
Love, T. H.....	33	Storrs & Harrison, Painesville, Ohio.
May Company.....	18	Storrs & Harrison, Painesville, Ohio.
Mershon, M. B.....	29	Storrs & Harrison, Painesville, Ohio.
Moore & Crumbaker.....	24	Storrs & Harrison, Painesville, Ohio.
Morley, E. C.....	19	Jackson & Perkins, Newark, N. Y.
McCabe, Michael.....	17	P. Bohlander, Tippecanoe City, Ohio.
McNary, H. J.....	30	Farmers Nursery Co., Troy, Ohio.
Oakes, Fernando C.....	26	H. M. Hardyzer, Booskoop, Holland.
Powell, A. W.....	35	Storrs & Harrison, Painesville, Ohio.
Sharp, W. P.....	1	I. W. Gaines, Xenia, Ohio.
Shattuck, Edward A.....	21	Storrs & Harrison Co., Painesville, Ohio.
Shoemaker, A. J.....	25	Jackson & Perkins, Newark, N. Y.
Slemmons G. Bret.....	14	Weber Nurseries, Greenfield, Ind.
Wilder, J. Co.....	13	Storrs & Harrison Co., Painesville, Ohio.
Woolworth, F. W. Co.....	34	John Siebenthaler, Dayton, Ohio.
Wright, Thomas L.....	23	Scarff Nurseries, N. Carlisle, Ohio.
Ziems, T. J. & Sons.....	22	P. Bohlander, Tippecanoe City, Ohio.
		Storrs & Harrison Co., Painesville, Ohio.
		T. B. West, Perry, Ohio.
		W. B. Cole, Painesville, Ohio.
		T. B. West, Perry, Ohio.
		W. N. Scarff, New Carlisle, Ohio.
		P. Bohlander, Tippecanoe City, Ohio.
		Donaldson & Co., Sparta, Ky.
		Storrs & Harrison, Painesville, Ohio.
		Storrs & Harrison, Painesville, Ohio.
		A. Barnes & Son, Mt. Healthy, Ohio.
		Donaldson Nursery, Mt. Healthy, Ohio.
		Taylor & Co., Rochester, N. Y.
		Warner Bros., Painesville, Ohio.
		Ringler Bros., Chicago, Ill.
		Xenia Star Nurseries, Xenia, Ohio.
		C. A. Ilgenfritz, Monroe, Mich.

REPORT
OF
Insecticides and Fungicides

**LICENSED, INSPECTED AND ANALYZED
DURING THE YEAR 1913.**

**By S. K. JOHNSON, Chief,
BUREAU OF INSPECTION.**

(885)

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ITEMS OF INTEREST.

Inspection and Analyses of Insecticides and Fungicides.

Law regulating the manufacture and sale of Insecticides and Fungicides in Ohio passed at this year's session of the Legislature. Law became effective July 18th.

Protective measures of this nature have long been needed in Ohio, as the Agricultural Interests, the Live Stock Interests and the Horticultural Interests of the State are enormous.

Object of the Law.

The purpose of the Ohio Insecticide and Fungicide Law is to regulate the sale of substances and compounds sold as insecticides and fungicides, to prevent their adulteration and to fix a standard of sale for such preparations as ARSENATE OF LEAD, LIME SULPHUR SOLUTION, PARIS GREEN, BORDEAUX MITURE, as well as to expose and prevent frauds and to protect manufacturers and dealers in the sale of honest goods.

The Ohio Insecticide Law is just in its infancy, but its utility and popularity will go unchallenged when its purposes are firmly established.

Registration Fee \$20.00.

This amount cannot be prorated under the provisions of the Insecticide and Fungicide Law. Goods found on the market at any time will require license. All licenses expire each calendar year, December 31st.

Inspectors.

Inspectors are prohibited from recommending any company's goods. Their duties are to collect samples exposed for sale and forward them, sealed, to the Division of Agriculture, Columbus.

Dealers Take Warning.

Law requires License Fee of \$20.00 per brand. Unless same is paid at its source, then dealer becomes individually liable for fee.

Ohio Insecticide Law.

The Ohio Law is modeled after the National Government's Act which permits manufacturer when making claims to state percent of each Active Ingredient and Total Per Cent of Inert, or in lieu thereof the percent of each Inert Ingredient without mentioning the Active. If product is 100% Active not necessary to state ingredients on package.

Meaning of Inert.

Any subject or mixture of substances that will not prevent, destroy, repel or mitigate insects which may infest vegetation, man or animals, or households or be present in any environment whatever would be classed as INERT.

All Registered Goods Not Analyzed.

Owing to the lateness of the year when the Insecticide Law became effective, Inspectors were unable to locate samples of all brands, which accounts for their analyses not appearing herein. However, list of those brands registered are published elsewhere in this Report.

Adulteration and Misbranding.

Since the National Government started to enforce the Insecticide and Fungicide Law there have been over seventy-five decisions rendered covering adulterations and misbranding of products sold in the United States.

Misleading Statements.

The term "CRUDE CARBOLIC ACID" frequently mentioned is not definite enough, because the percentage of Phenols varies con-

siderably. The same applies to "TAR OILS." for tar oil may include carbolic acid, creosote oil, anthracite oil, naphthaline oil, heavy oil, etc.

The term "TOBACCO" is misleading for the principal constituent is nicotine.

ATTENTION! ATTENTION!

Below are given analyses of fourteen different brands of lime-sulphur solution found on Ohio markets in 1912. Directions for the dilution of concentrated lime-sulphur for orchard use are based on a solution containing 25 per cent of sulphur which is considered standard strength. A glance at this table will show that eight brands are so far below standard that they would be practically worthless when used according to general recommendations. The majority of these inferior brands were manufactured within the State and emphasized the necessity of an Ohio insecticide and fungicide law.

RESULTS OF LIME-SULPHUR DETERMINATIONS.

Sample No.	Specific Gravity.	Percent. Sulphur.	Total per cent. of Lime.
No. 1.....	1.129	10.56	3.48
No. 2.....	1.287	24.71	9.55
No. 3.....	1.266	23.06	9.16
No. 4.....	1.172	13.88	6.31
No. 5.....	1.301	25.29	9.96
No. 6.....	1.308	26.56	10.19
No. 7.....	1.288	25.16	9.71
No. 8.....	1.291	25.13	9.53
No. 9.....	1.273	19.27	7.64
No. 10.....	1.296	24.81	9.57
No. 11.....	1.160	8.16	5.50
No. 12.....	1.223	16.73	7.88
No. 13.....	1.247	20.84	8.49
No. 14.....	1.276	23.73	9.47

The Term Insecticide.

The term Insecticide includes any substance or mixture of substances intended to prevent, destroy, repel or mitigate insects which may infest vegetation, man or animal, or household, or be present in any environment whatever.

This has been interpreted or modified by the Agricultural Commission as exempting from registration all drugs, chemicals, etc., recognized by the United States Pharmacopea, National Formulary or their recognized standards, as well as all preparations extemporaneously prepared or compounded for customers for use and not for re-sale; all preparations for which no claims are made for Insecticidal or Fungicidal properties and preparations upon which license has already been paid by manufacturer.

THE OBJECTS, NEEDS AND ADVANTAGES OF AN INSECTICIDE LAW TO THE MANUFACTURER.

By M. S. DENNIS, Cleveland, Ohio.

The objects, needs and advantages of the Ohio Insecticide and Fungicide Law to the manufacturers of Spray Products do not materially differ in most cases from the objects, needs and advantages of such a law to the fruit grower.

Every manufacturer of spray products, whose goods are used in the State of Ohio, as well as every progressive fruit grower in Ohio should be in favor of the Ohio Insecticide and Fungicide Law. It is patterned after and follows closely the provisions of the Federal Insecticide Act of 1910. Both of these laws are for the purpose of regulating the manufacture and sale of Insecticides and Fungicides.

The Federal Law applies to Insecticides and Fungicides manufactured in one State and shipped into another State, but does not apply to spray products that are not shipped outside of the State in which they are manufactured.

Thus the Ohio Law supplements the Federal Law in that it applies to Insecticides and Fungicides manufactured in the State of Ohio and shipped to points within the State, as well as to Spray Products shipped from another State into the State.

The benefit of the Ohio Insecticide and Fungicide Law to the fruit grower was to standardize the strength and purity of Spray Products furnished by the manufacturers.

The working of the Law compels the manufacturer to furnish high grade Insecticides and Fungicides to the consumer.

The Insecticide Act of 1910 has done much to standardize Spray Products and its beneficial results will be increasingly apparent as the years go by.

The Ohio Insecticide and Fungicide Law will do for Ohio what the Federal Insecticide Act has done and will do for interstate shipping. The enforcement of the Federal and State Laws will, to a large extent, do away with unsatisfactory results from spraying by new beginners, due to using inferior products.

The enforcement of this law will mean an increase in the production of high grade fruit and improvement in the fruit growing industry in Ohio.

The close co-operation now existing between the progressive fruit growers and the authorities in the U. S. Department of Agriculture with the authorities in our State Experiment Stations, which insures greater protection through the working of the law, will undoubtedly cause better results to growers of fruit.

MISLEADING STATEMENTS AS TO THE COMPOSITION OF INSECTICIDES AND FUNGICIDES.

By D. J. DEMOREST, *Ohio State University, Columbus, Ohio.*

The composition of an article may be stated perfectly truthfully and yet be misleading or at least confusing to the non-technical purchaser. For instance, the constituent of tobacco, which is active as an insecticide, is nicotine only. Tobacco may contain anywhere from a trace to several per cent of nicotine, depending upon the locality in which it is grown and the variety of the tobacco, and the part of the tobacco plant. Therefore, the statement that an insecticide contains say fifty per cent of tobacco or technically, *Nicotiana Tobaccum*, does not mean anything definite. Therefore, the claim should be made of the percentage of nicotine present and not the percentage of tobacco.

Again, insecticides sometimes are stated to contain a certain percentage of creosote oil. This is an indefinite statement and does not mean much, because the active constituents of creosote oil are the phenols which vary widely in different creosote oils. Same thing is true of carbolic oil, which may contain anywhere from perhaps twenty to fifty per cent of phenols, and the same variation in its naphthaline content. For instance, one sample which claims to contain fifty per cent of carbolic oil, actually contains only three and four-tenths per cent of phenols.

The term "crude carbolic acid," is not much more definite because the percentage of phenols in crude carbolic acid varies considerably. Still more indefinite than any of the above is the term "tar oils," for tar oil may include carbolic oil, creosote oil, anthracite oil, naphthaline oil, heavy oil, etc.

Therefore, all these terms should be substituted by statements giving the percentage of the actual active constituents present, such as phenols, naphthaline, etc.

The term "phenols" is a generic one, including the compounds phenol (C_6H_5OH), cresols (C_7H_7OH) and similar compounds of higher molecular weight.

It is obvious that unless the purchaser has some way of knowing the actual amount of the active constituents in the material he uses, he may use for a given purpose the material which is either too strong or too weak to accomplish his wish.

INSECTICIDES AND FUNGICIDES: SECRET FORMULAS VERSUS PROPERLY LABELED PREPARATIONS.

By E. E. SOMERMEIER, *Ohio State University, Columbus, Ohio.*

The famous showman, P. T. Barnum, said that the American people liked to be humbugged, and catering to the curiosity and imagination of the masses, he acquired both fame and riches.

To say that secret preparations are necessarily humbugs is to exaggerate the truth, but as a general proposition, it is a fact that the extensive sale of secret preparations is to a large degree dependent upon the ignorance, thoughtlessness and credulity of the purchasers.

Facts Regarding Secret Formulas.

Some facts regarding secret formulas are as follows:

(1) They enable the manufacturer to make all kinds of extravagant claims regarding the properties and virtues of their preparations, such as they would not dare make if the preparations were sold under their true labels. There is a limit to the properties and virtues of common salt, sulphur, copper sulfate, lead arsenate, etc., etc., if sold under their true names; but as a part of a secret preparation their properties and virtues are oftentimes only limited by the imagination of the manufacturer and his ability to use the English language.

(2) Secret formulas, make it possible to sell comparatively worthless materials at a price equal to or often greater than the value of worthy preparations which are sold under their true names.

(3) Secret formulas, where the preparations have real merit, afford an opportunity of selling the material at an exorbitant price; not infrequently preparations selling for a dollar a package can be bought if sold under their true names, at one tenth the price charged for the secret formula.

(4) Secret formulas prevent the purchaser from using the general information available regarding the insecticidal and fungicidal properties of the material purchased, and have the effect, in so far as the purchaser is concerned of rendering practically worthless any and all of the information regarding insecticides and fungicides. For to obtain this information the United States Department of Agriculture and the different state Experiment Stations annually expend thousands of dollars, and publish scores of bulletins for free distribution to such plant and tree growers as are progressive enough to make use of them.

(5) The claims of any particular manufacturer, as to the great superiority of his secret preparation over any and all other preparations is largely "hot air," for a competent chemist can determine the

approximate composition of any preparation on the market, and any manufacturer can closely duplicate the product of another manufacturer, and the sale of a preparation under some particular trade name, does not prevent another manufacturer from selling the identical material under some other name, or from selling it under its true name at a greatly reduced price.

Hesitate Buying Preparations of Unknown Nature.

The above facts would appear sufficient to cause any thoughtful person to hesitate before paying out money for preparations of an unknown nature; a knowledge of which he is dependent upon the claims as set forth by the manufacturer or the selling agent, as their claims are, it is needless to say, liable to be biased or unreliable, so the thoughtful person will hesitate before paying an exorbitant price for a preparation simply because it bears a handsome label and does not offer to come out and stand the price competition of the chemicals or materials under their true names.

Plant and Fruit Growers Should Demand Honest Goods.

Every progressive plant and fruit grower ought to demand honest goods at a fair price, and plainly labeled, and should be active in support of the efforts of the Agricultural Commission to force the manufacturers to keep the quality of their products up to claims shown on labels, which claims should be both complete and intelligible. Every purchaser of an insecticide or fungicide preparation should demand goods of known composition, and so help to discourage the sale of preparations sold under such indefinite formulas as active ingredients 80%, inert ingredients 20%, which formula should not satisfy the intelligence of any self respecting American citizen.

TABULATED ANALYSES OF INSECTICIDES AND FUNGICIDES.

Samples gathered during 1913.

All analyses made by Ohio State University Chemist, Columbus, Ohio. Samples retested and results confirmed.

Lime—Sulphur Solution.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Sulphur. Per Cent.	Degree Baume.	Calcium Oxide Per Cent.	Record Number.
4	DOW CHEMICAL CO., THE, MIDLAND, MICH.	1913				4
	Dow Lime—Sulphur Solution.....	Claimed Found	25.50 24.86	33.0 33.0	9.75 9.65	
5	GRASSELLI CHEMICAL CO., THE, CLEVELAND, OHIO.	1913				5
	Grasselli Lime—Sulphur Solution.....	Claimed Found	25.00 27.25	33.0 36.5	10.66	
3	KIBLER-LIEBER CO., INDIANAPOLIS, IND.	1913				3
	Kibler's Lime—Sulphur Solution.....	Claimed Found	24.00 21.21	32.0 28.9	8.00 8.43	
10	OWENS & SON, JOHN D., OWENS, OHIO.	1913				10
	Clover Leaf Lime—Sulphur Solution.....	Claimed Found	25.00 24.00	32.0 32.3	10.00 9.28	
14	TOLEDO REX SPRAY CO., THE, TOLEDO, OHIO.	1913				14
	Rex Lime and Sulphur Solution.....	Claimed Found	24.00 24.60	31.0 32.3	9.00 9.51	

Other Sulphur Compounds.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Sulphur Per Cent.	Copper Oxide Per Cent.	Soluble Copper Per Cent.	Sodium Per Cent.	Record Number.
2	HAMMOND, BENJAMIN, FISHKILL-ON-HUDSON, N. Y.	1913					2
	Hammond's Grape Dust.....	Claimed Found	64.00 65.18	0.80 0.71	0.24		
11	NIAGARA SPRAYER CO., MIDDLEPORT, N. Y.	1913					11
	Soluble Sulphur Compound.....	Claimed Found	58.00 38.04			40.00 25.00	

Arsenate of Lead—Paste.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Arsenic Oxide.		Lead Oxide.	Water.	Record Number.
			Total.	Water Sol-uble.			
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	
	DEVOE & RAYNOLDS CO., CHICAGO, ILL.	1913					
33	Arsenate of Lead and Water.....	Claimed Found	13.50 14.99	0.25 0.44	30.00 36.57	52.00 45.10	33
	DOW CHEMICAL CO., THE, MIDLAND, MICH.	1913					
20	Dow Arsenate of Lead.....	Claimed Found	15.00 15.11	0.75 0.68	35.00 32.12	50.00 50.69	20
	GRASSELLI CHEMICAL CO., THE, CLEVELAND, OHIO.	1913					
18	Grasselli Arsenate of Lead Paste.....	Claimed Found	13.50 15.53	0.50 0.58	34.00 38.38	50.00 44.05	18
	KIBLER-LIEBER CO., INDIANAPOLIS, IND.	1913					
30	Kibler's Arsenate of Lead Paste.....	Claimed Found	12.50 14.85	0.75 1.91	35.00 26.28	50.00 55.85	30
	POWERS-WEIGHTMAN-ROSEN-GARTEN CO., PHILADELPHIA, PA.	1913					
32	Lead Arsenate—Paste.....	Claimed Found	12.50 17.32	0.75 0.82	39.00 49.71	45.00 28.58	32
	SHERWIN-WILLIAMS CO., THE, CLEVELAND, OHIO.	1913					
34	Arsenate of Lead Paste.....	Claimed Found	12.50 12.19	0.75 0.82	35.00 36.29	50.00 49.21	34
	TOLEDO REX SPRAY CO., THE, TOLEDO, OHIO.	1913					
6	Rex Arsenate of Lead.....	Claimed Found	12.50 16.37	0.75 0.21	32.00 35.20	50.00 48.47	6

Arsenate of Lead—Powder.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Arsenic Oxide.		Lead Oxide.	Water.	Record Number.
			Total.	Water Sol-uble.			
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	
	GRASSELLI CHEMICAL CO., THE, CLEVELAND, OHIO.	1913					
19	Grasselli Arsenate of Lead, Powdered	Claimed Found	27.00 22.67	1.00 0.46	65.00 72.18	..... 0.79	19

Lead Arsenate is sold in the form of a Paste and as a Powder. The law states that Lead Arsenate Paste should be deemed to be adulterated if it contains more than fifty (50) per centum of Water, unless sold as Arsenate of Lead and Water; or, if it contains less than twelve and one-half (12½) per centum of Arsenic under the terms of Arsenic Oxide or more than seventy-five one hundredths (0.75) per centum of Water Soluble Arsenic Oxide.

For Powdered Arsenate of Lead: First, if it contains Total Arsenic equivalent to less than twenty-five per centum of Arsenic Oxide; second, if it contains Arsenic in Water Soluble forms equivalent to more than one and one-half per centum of Arsenic and Arsenious Oxides; third, if any substances have been mixed and packed with it so as to reduce: lower or injuriously affect its quality or strength.

Paris Green.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Copper Per Cent.	Arsenious Oxide.		Record Number.
				Total Per Cent.	Water Soluble Per Cent.	
35	DEVOE & RAYNOLDS CO., CHICAGO, ILL. Paris Green.....	1913 Claimed Found	23.93	50.00 44.66	3.50 1.44	35
42	SHERWIN-WILLIAMS CO., THE, CLEVELAND, OHIO. Sherwin-Williams Paris Green.....	1913 Claimed Found	24.62	50.00 44.54	3.50 1.46	42

Paris Green should contain at least fifty per centum of Arsenious Oxide; while Arsenic in Water Soluble forms should not exceed three and one-half per centum of Arsenious Oxide.

Bordeaux and Lead Arsenate Mixture.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Copper Per Cent.	Calcium Oxide Per Cent.	Arsenic Oxide Per Cent.	Soluble Arsenic Oxide Per Cent.	Water Maximum.	Record Number.
21	GRASSELLI CHEMICAL CO., THE, CLEVELAND, OHIO. Grasselli Bordeaux Mixture Paste.....	1913 Claimed Found	4.50 4.60	20.10			65.00 58.30	21
22	Grasselli Boedeaux Mixture Powdered.....	Claimed Found	12.00 9.30	45.54				22
31	Grasselli Bordeaux Lead Arsenate Mixture Paste.....	Claimed Found	3.25 4.90		0.78	0.78	60.00 45.10	31

Phenol Preparations.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found	Water Per Cent.	Phenols Per Cent.	Sulphur Per Cent.	Crude Petroleum Per Cent.	Carbolic Oil Per Cent.	Record Number.
	CONKEY COMPANY, THE G. E., CLEVELAND, OHIO.	1913						
23	Conkey's Noxicide.....	Claimed Found	9.00 7.70	13.50				23
	HESS & CLARK, DR., ASHLAND, OHIO.	1913						
26	Dr. Hess Dip and Disinfectant.....	Claimed Found	9.50 17.40	14.00 17.40				26
	HYGENO DISINFECTANT CO., THE, CLEVELAND, OHIO.	1913						
38	Hygeno A.....	Claimed Found	8.50 16.80	18.10 16.80				38
	KARBRAK CHEMICAL CO., INC., WELLSBORO, PA.	1913						
13	KarBrak Disinfectant.....	Claimed Found		25.00 22.80	1.25			13
	PARKE, DAVIS & CO., DETROIT, MICH.	1913						
16	Kreso.....	Claimed Found		27.00 28.80				16
*17	Kreso Dip No. 1.....	Claimed Found	10.80	19.00 22.70	(Average)			17
	WOOD, D., KIPTON, OHIO.	1913						
†44	Condensed Hen Ease.....	Claimed Found		3.40		50.00	50.00	44

*In. Re. No. 17. Parke, Davis & Co., in making claims for KRESO DIP No. 1, stated same to contain from 50 to 60% (By Vol.) of COAL TAR HYDROCARBONS, 16 to 22% (By Vol.) of COAL TAR PHENOLS, $\frac{1}{4}$ to 1% (By Wgt.) SODIUM POLYSULPHIDE, 18 $\frac{1}{2}$ % SOAP and about 5% Inert Ingredient.

As the Phenols are considered essential ingredients, Chemist did not consider it necessary to make complete analysis, so failure to report per cent of SODIUM POLYSULPHIDE and SOAP is not to be taken as an indication that these materials were not present in the preparation.

†Sample No. 44 claims to have 50% Carbolic Oil. Carbolic Oil is an indefinite term and is supposed to have from 25 to 40% Phenols. This sample actually contains only 3.4% Phenols.

Lice Powders—Pastes—Liquids.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Phenols Per Cent.	Nicotine Per Cent.	Napthalene Per Cent.	Sulphur Per Cent.	Inert Per Cent.	Record Number.
	CONKEY COMPANY, THE G. E., CLEVELAND, OHIO.	1913						
24	Conkey's Lice Powder.....	Claimed Found	0.60 2.20	0.10 0.14		15.85 17.50	83.45	24
	DOWNES, ANDREW S., MARTEL, OHIO.	1913						
28	Downs' Louse Exterminator and Disinfectant.....	Claimed Found			25.00 15.50	15.00 16.96	60.00	28

LICE POWDERS—PASTES—LIQUIDS—Concluded.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Phenols Per Cent.	Nicotine Per Cent.	Napthalene Per Cent.	Sulphur Per Cent.	Inert. Per Cent.	Record Number.
	FINK, G. W. GLOUSTER, OHIO.	1913						
*48	Fink's Insect Destroyer.....	Claimed Found	7.00 trace	0.07		21.92		48
	HESS & CLARK, DR., ASHLAND, OHIO.	1913						
‡25	Instant Louse Killer.....	Claimed Found			18.00		31.08 77.00	25
	McCLAIN & SONS, DR., JEROMEVILLE, OHIO.	1913						
†49	Dr. McClain's Louse Killer.....	Claimed Found	100% Active.	0.10	15.00	6.86		49
	O. K. STOCK FOOD CO., THE, CHICAGO, ILL.	1913						
41	Lambert's "Death to Lice" Powder..	Claimed Found	0.60 2.35	0.50 0.18			98.90	41
	PRATT FOOD COMPANY, PHILADELPHIA, PA.	1913						
†40	Pratt's Lice Killer.....	Claimed Found		0.14	5.60		22.40	40
	THOMPSON & CO., F. A., DETROIT, MICH.	1913						
37	Rose Nicotine (Liquid).....	Claimed Found		10.00 7.34			90.00	37
	UNITED STATES FOOD CO., THE, PLEASANT CITY, OHIO.	1913						
43	U. S. Louse Killer.....	Claimed Found			14.00 12.50	16.00 14.89	70.00	43
	ZOLFO REMEDY CO., THE, GLANDORF, OHIO.	1913						
29	Zolfo's Louse Powder.....	Claimed Found			15.00 8.00	15.00 15.13	65.00	29

*In Re. No. 48. G. W. Fink of Gloucester, Ohio, when registering FINK'S INSECT DESTROYER, made claims as follows: Sulphur $\frac{1}{2}$, Tobacco Dust $\frac{1}{2}$, Lime $\frac{1}{2}$. Sample claims to contain two and one-half gallon of Crude Carbolic Acid to three hundred pounds. The term Crude Carbolic Acid does not mean much as is may contain anywhere from 15% or more of Phenols.

If this Crude Carbolic Acid was 100% pure, this insecticide should contain 7% of Phenols. Analysis shows it to contain only a trace, so their claims are very misleading.

†In Re. No. 49. Dr. McClain & Sons claim their LOUSE KILLER to be 100% ACTIVE, though the ingredients furnished us at the time of registration are Napthalene, Sulphur, Tobacco and Lime. Lime in this case would be Inert in spite of claims that product is 100% Active.

‡Sample No. 25 claims 31% Inert. Chemist reports it as 77%. It is true that some of this 77% may be lime, but the U. S. Insecticide Bureau has ruled that lime is not an Active Ingredient.

§Sample No. 40 claims 68% Nicotine Tobaccum. Tobacco may contain anywhere from a trace to 6% or 8% of Nicotine, and since Nicotine is the only active constituent of Tobacco, as an insecticide the term is confusing. As a matter of fact, the sample contains only 0.14% Nicotine.

Rat Paste.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found	Phosphorus Per Cent.	Record Number.
	AJAX CHEMICAL CO., AKRON, OHIO. .	1913		
39	Rat Cremator.....	Claimed Found	2.00 1.48	39
	STEARNS' ELECTRIC PASTE CO., CHICAGO, ILL.	1913		
8	Stearns' Electric Rat and Roach Paste.....	Claimed Found	2.00 3.65	8

Miscellaneous.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Water Per Cent.	Pyrethrum Per Cent.	Sulphur Per Cent.	Copper Sulphate Per Cent.	Phenols Per Cent.	Nicotine Per Cent.	Lerpur Per Cent.	Sodium Fluoride.	Sodium Sulphate and Carbonate.	Record Number.
15	BAUER & BLACK, CHICAGO, ILL. B. & B. Sulphur Fumes.	1913 Claimed Found	Consists of Sulphur except wick. 98.88 % Sulphur.									15
12	CONKEY COMPANY, THE O. E., CLEVELAND, OHIO. Conkey's Fly Knocker	1913 Claimed Found	2.00 0.10									12
45	DANFORTH CHEMICAL CO., LEOMINSTER, MASS. Bug Death	1913 Claimed Found	(Zinc Oxide and Lead Oxide.) (No Active Material. See note at bottom.)									45
7	GILPIN, LANGDON & CO., INC., BALTIMORE, MD. Black Flag Insect Powder	1913 Claimed Found	100.00 95.00									7
1	HAMMOND, BENJAMIN, FISHKILL-ON-HUDSON, N. Y. Hammond's Slug Shot	1913 Claimed Found		8.00 19.50	1.00	2.00						1
36	KENTUCKY TOBACCO PRODUCT CO., THE LOUISVILLE, KY. Black Leaf 40	1913 Claimed Found						40.00 48.00				36
46	Nico-Fume Liquid	Claimed Found						40.00 51.10				46

47	STEARN'S & COMPANY, FREDERICK, ? DETROIT, MICH.	Nyal's Compound Larkspur Lotion.....	1913 Claimed Pound	2.40 3.00	47
27	SMITH & COMPANY, D. B., UTICA, N. Y.	Standard Fly and Germ Killer.....	1913 Claimed Pound	(Petroleum 0.50%; Pine Soluble 0.25% and Tar Oil 0.25%.) (Contains Petroleum, Tar Oil and Pine Soluble.)	27
9	THOMPSON & COMPANY, F. A., DETROIT, MICH.	Rose Nicotine Powder.....	1913 Claimed Pound	90.00 95.00	10.00 4.22

*Sample No. 45 claims 47% Zinc Oxide and 5% Lead Oxide as being Active and the rest as Inert. Inasmuch as Oxide of Zinc and Lead are not Insecticides, this sample is 100% Inert. Only by breaking a bug's back through the use of an excessive quantity will the preparation be Active.

DANGER! STOP! LOOK! LISTEN!

These brands show a decided deficiency in essential ingredients as claimed by manufacturers and are therefore placed in the Contagious Disease column. Samples drawn in accordance with the law and analyzed by competent chemist.

Lime—Sulphur Solution.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found	Sulphur Per Cent.	Degree Baume.	Calcium Oxide Per Cent.	Record Number.
3	KIBLER-LIEBER CO., INDIANAPOLIS, IND. Kibler's Lime—Sulphur Solution	1913				3
		Claimed Found	24.00 21.31	32.0 28.9	8.00 8.43	

Other Sulphur Compounds.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Sulphur Per Cent.	Copper Oxide Per Cent.	Soluble Copper Per Cent.	Sodium Per Cent.	Record Number.
11	NIAGARA SPRAYER CO., MIDDLEPORT, N. Y. Soluble Sulphur Compound	1913					11
		Claimed Found	58.00 38.04			40.00 25.00	

Arsenate of Lead—Paste.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Arsenic Oxide.		Lead Oxide.	Water.	Record Number.
			Total.	Water Sol- uble.			
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	
30	KIBLER-LIEBER CO., INDIANAPOLIS, IND. Kibler's Arsenate of Lead Paste	1913					30
		Claimed Found	12.50 14.85	.75 1.91	35.00 26.28	50.00 55.85	

DANGER! STOP! LOOK! LISTEN!—Continued.

Arsenate of Lead—Powder.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Arsenic Oxide.		Lead Oxide.	Water.	Record Number.
			Total.	Water Soluble.			
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	
19	GRASELLI CHEMICAL CO., THE, CLEVELAND, OHIO.	1913					19
	Grasselli Arsenate of Lead, Powdered	Claimed Found	27.00 22.67	1.00 0.46	65.00 72.18	0.79	

Paris Green.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Copper Per Cent.	Arsenious Oxide.		Record Number.
				Total Per Cent.	Water Soluble Per Cent.	
				Per Cent.	Per Cent.	
35	DEVOE & RAYNOLDS CO., CHICAGO, ILL.	1913				35
	Paris Green.....	Claimed Found	23.93	50.00 44.66	3.50 1.44	
42	SHERWIN-WILLIAMS CO., THE, CLEVELAND, OHIO.	1913				42
	Sherwin-Williams Paris Green.....	Claimed Found	24.62	50.00 44.54	3.50 1.46	

Bordeaux and Lead Arsenate Mixture.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Copper Per Cent.	Calcium Oxide Per Cent.	Arsenic Oxide Per Cent.	Soluble Arsenic Oxide Per Cent.	Water, Maximum.	Record Number.
22	GRASELLI CHEMICAL CO., THE, CLEVELAND, OHIO.	1913						22
	Grasselli Bordeaux Mixture Powdered.....	Claimed Found	12.00 9.30	45.54				

DANGER! STOP! LOOK! LISTEN!—Continued.

Rat Paste.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Phosphorus Per Cent.	Record Number.
39	AJAX CHEMICAL CO., AKRON, OHIO. Rat Cremator.....	1913 Claimed Found	2.00 1.43	39

Phenol Preparations.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Water Per Cent.	Phenols Per Cent.	Sulphur Per Cent.	Crude Petroleum Per Cent.	Carbolic Oil Per Cent.	Record Number.
38	HYGENO DISINFECTANT CO., THE, CLEVELAND, OHIO. Hygeno A.....	1913 Claimed Found	8.50	18.10 16.80				38
13	KARBRAK, CHEMICAL CO., INC., WELLSBORO, PA. KarBrak Disinfectant.....	1913 Claimed Found		25.00 22.80	1.25			13
44	WOOD, D., KIPTON, OHIO. Condensed Hen Ease.....	1913 Claimed Found		3.40		50.00	50.00	44

Lice Powders—Pastes—Liquids.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Phenols Per Cent.	Nicotine Per Cent.	Napthaline Per Cent.	Sulphur Per Cent.	Inert. Per Cent.	Record Number.
28	DOWNS, ANDREW S., MARTEL, OHIO. Down's Louse Exterminator and Disinfectant.....	1913 Claimed Found			25.00 15.00	15.00 16.96	60.00	28
48	FINK, G. W., GLOUSTER, OHIO. Fink's Insect Destroyer.....	1913 Claimed Found	7.00 trace	0.70		21.92		48
25	HESS & CLARK, DR., ASHLAND, OHIO. Instant Louse Killer.....	1913 Claimed Found			18.00		31.08 77.00	25

DANGER! STOP! LOOK! LISTEN!—Concluded.

LICE POWDERS—PASTES—LIQUIDS—Concluded.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Phenols Per Cent.	Nicotine Per Cent.	Napthaline Per Cent.	Sulphur Per Cent.	Inert. Per Cent.	Record Number.
	McCLAIN & SONS, DR., JEROMEVILLE, OHIO.	1913						
49	Dr. McClain's Louse Killer.....	Claimed Found	100% Active.	0.10	15.00	6.86		49
	PRATT FOOD COMPANY, PHILADELPHIA, PA.	1913						
40	Pratt's Lice Killer.....	Claimed Found		0.14	5.60		22.40	40
	THOMPSON & CO., F. A., DETROIT, MICH.	1913						
37	Rose Nicotine (Liquid).....	Claimed Found		10.00 7.34			90.00	37
	UNITED STATES FOOD CO., THE, PLEASANT CITY, O.	1913						
43	U. S. Louse Killer.....	Claimed Found			14.00 12.50	16.00 14.89	70.00	43
	ZOLFO REMEDY CO., THE, GLANDORF, OHIO.	1913						
29	Zolfo's Louse Powder.....	Claimed Found			15.00 8.00	15.00 16.13	65.00	29

Miscellaneous.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Water Per Cent.	Zinc Oxide Per Cent.	Lead Oxide Per Cent.	Record Number.
	DANFORTH CHEMICAL CO., LEOMINSTER, MASS.	1913				
45	Bug Death.....	Claimed Found		47.00	5.00	45
			No Active Material.			

CAUTION! CAUTION! CAUTION!

As the deficiency in essential ingredients as claimed by manufacturer is only slight, these brands do not belong in the Contagious Disease Column. All Samples drawn in accordance with the Law and analyzed by competent chemist.

Lime—Sulphur Solution.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Sulphur Per Cent.	Degree Baume.	Calcium Oxide Per Cent.	Record Number.
4	DOW CHEMICAL CO., THE, MIDLAND, MICH.	1913				4
	Dow Lime—Sulphur Solution.....	Claimed Found	25.50 24.86	33.0 33.0	9.75 9.65	
10	OWENS & SON, JOHN D., OWENS, OHIO.	1913				10
	Clover Leaf Lime Sulphur Solution.....	Claimed Found	25.00 24.00	32.0 32.3	10.00 9.28	

Arsenate of Lead—Paste.

Record Number.	Name and Address of Person, Firm or Corporation and Name of Brand.	Claimed and Found.	Arsenic Oxide.		Lead Oxide.	Water.	Record Number.
			Total.	Water Soluble.			
			Per Cent.	Per Cent.	Per Cent.	Per Cent.	
34	SHERWIN-WILLIAMS CO., THE, CLEVELAND, OHIO.	1913					34
	Arsenate of Lead Paste.....	Claimed Found	12.50 12.19	0.75 0.82	35.00 36.29	50.00 49.21	

BEWARE! BEWARE!

Since the National Government started to enforce the Insecticide and Fungicide Law there have been many decisions rendered against manufacturers covering adulteration and misbranding of products shipped interstate and sold as Insecticides and Fungicides.

Below are given NOTICES OF INSECTICIDE ACT JUDGMENTS, 1 to 88 published by the United States Department of Agriculture. The Ohio Division of Agriculture now publishes this list for the benefit of the whole trade.

Samples of products found to be adulterated or misbranded within the meaning of the National Insecticide and Fungicide Act of 1910 were taken from goods shipped interstate. The fact that there were so many Court decisions rendered against manufacturers of these products, strongly emphasizes the necessity for State regulation. If products deficient in essential ingredients be shipped from one state into another as shown by list published below, what is there to prevent a manufacturer of worthless products located in a state where there is no Insecticide Law from unloading these goods upon his unsuspecting neighbor?

Any farm product injured by an insect will never rank as first class, and as the loss from pests each year amounts to millions of dollars, it behooves every buyer of Insecticidal products to insist on the same being sold under guaranteed analysis and state inspection.

A State without an Insecticide and Fungicide Law is not only at the mercy of outside manufacturers shipping interstate, but by those located within its own border; for the former will take chances on not being detected in the practice, while the latter are not required to conform to any law but their own.

Arranged Numerically.

No.	Product.	Defendant or Claimant.
1.	Misbranding of "Zenoleum".....	Zenner Disinfectant Co., Detroit, Mich.
2.	Misbranding of Paris green.....	The Sherwin-Williams Co., Chicago, Ill.
3.	Adulteration and misbranding of Paris green.....	Devoe & Reynolds Co., Chicago, Ill.
4.	Adulteration of Lead Arsenate.....	The Sherwin-Williams Co., Chicago, Ill.
5.	Adulteration and misbranding of Lead Arsenate.....	Devoe & Reynolds Co., Chicago, Ill.
6.	Misbranded "Shoo-Fly, The Animal's Friend".....	Thomas M. Hall, trading as "Shoo-Fly" Manufacturing Co., Philadelphia, Pa.
7.	Misbranding of "Instant Louse Killer".....	G. Hess and J. L. Clark, trading as Dr. Hess & Clark, Ashland, Ohio.
8.	Misbranding of "To-Bak-Ine Liquid".....	F. A. Thompson & Co., Detroit, Mich.
9.	Misbranding of "Thompson's Rose Nicotine".....	Do.
10.	Misbranding of "Dr. LeGear's Dip and Disinfectant".....	Dr. L. D. LeGear Medicine Co., St. Louis, Mo.
11.	Adulteration and misbranding of Arsenate of Lead..	Devoe & Reynolds Co., Kansas City, Mo.
12.	Misbranding of "Krysol Comp".....	Jules Blan, trading as Metropolitan Chemical Specialty Co., Port Richmond, N. Y.
13.	Misbranding of "Pheno-Chloro".....	International Stock Food Co., Minneapolis, Minn.

No.	Product.	Defendant or Claimant.
14.	Misbranding of "Lion Brand Bordeaux Mixture".....	The James A. Blanchard Co., New York, N.Y.
15.	Misbranding of "Lee's Insect Destroyer".....	Geo. H. Lee, Omaha, Neb.
16.	Misbranding of "Phenol Sodique".....	Edward H. Hance and Anthony M. Hance, trading as Hance Bros. & White, Philadel- phia, Pa.
17.	Misbranding of "Rat Bis-Kit Paste".....	The Rat Biscuit Co., Springfield, Ohio.
18.	Adulteration and misbranding of Arsenate of Lead..	The Sherwin-Williams Co., Cleveland, Ohio.
19.	Misbranding of "Conkey's Dip and Disinfectant;" misbranding of "Conkey's Noxi-I-Cide;" misbrand- ing of "Conkey's Fly Knocker".....	G. E. Conkey Co., Cleveland, Ohio.
20.	Misbranding of "Conkey's Lice Liquid;" misbrand- ing of "Conkey's Bug and Moth Killer".....	Do.
21.	Misbranding of "Zenoleum".....	Zenner Disinfectant Co., Detroit, Mich.
22.	Misbranding of "Kibler's Strictly Pure Paris Green"	Kibler Chemical Co., Indianapolis, Ind.
23.	Misbranding of "Extra Refined Camphorated Flake Compound".....	Lewy Chemical Co., New York, N. Y.
24.	Misbranding of "Extra Refined Chinese Ta Na Cam- phor Compound".....	Do.
25.	Adulteration and misbranding of "Cedar of Lebanon and Camphor".....	Do.
26.	Adulteration and misbranding of "Wonder Fly Killer".....	The Watson Co., Peru, Ind.
27.	Misbranding of "Tarola".....	Barrett Manufacturing Co., Philadelphia, Pa.
28.	Adulteration and misbranding of "Nico-fume Liquid"	Kentucky Tobacco Product Co., Louisville, Ky.
29.	Misbranding of "Peterman's Roach Food".....	Calvert Drug Co., Baltimore, Md.
30.	Adulteration and misbranding of "French Bordeaux Mixture".....	Benjamin Hammond, trading as Hammond's Paint & Slug Shot Works, Fishkill on the Hudson, N. Y.
31.	Misbranding of "Lime, Sulphur and Salt," or "Hori- cum".....	Do.
32.	Misbranding of "Kerosene Oil Emulsion".....	Do.
33.	Misbranding of Lead Arsenate; misbranding of Paris green; adulteration and misbranding of Lead Arsenate.....	James A. Blanchard Co., New York, N. Y.
34.	Misbranding of "Niagara Spray".....	Hood River Spray Manufacturing Co., Hood River, Ore.
35.	Misbranding of "Roach Sault".....	Barrett Chemical Co., New York, N. Y.
36.	Misbranding of "Creolusol".....	George E. Littlefield, trading as Sterling Chemical Co., Cambridge, Mass.
37.	Misbranding of "Rusoline".....	William H. Rust, New Brunswick, N. J.
38.	Misbranding of "Security Carbolyzed Disinfectant".....	William McCann, Minneapolis, Minn.
39.	Misbranding of "Roach Sault".....	Barrett Chemical Co., New York, N. Y.
40.	Misbranding of "Peterman's Roach Food".....	William Peterman (Inc.), New York, N.Y.
41.	Misbranding of "Peterman's Ant Food".....	Do.
42.	Misbranding of "Insectone".....	William Branson, Bloomington, Ill.
43.	Adulteration and misbranding of "Odell's Roach Powder".....	L. Albert Odell, trading as Pittsburgh Insect Exterminator Co., Pittsburgh, Pa.
44.	Adulteration and misbranding of "Hemingway's Pure Lead Arsenate".....	Peter Kerr, Thomas Kerr and Andrew Kerr, trading as Kerr, Gifford & Co., Portland, Ore.
45.	Adulteration and misbranding of "Grasselli Arsenate of Lead Paste".....	The Grasselli Chemical Co., New Orleans, La.
46.	Misbranding of "Sherwin-Williams Strictly Pure Paris Green".....	The Sherwin-Williams Co., Kansas City, Mo.
47.	Misbranding of "Crown Animal Spray".....	The Crown Chemical Co., Grayling, Mich.
48.	Misbranding of "Chloro-Naphtoleum D.N.".....	West Disinfecting Co., New York, N. Y.
49.	Misbranding of "Stott's Fir Tree Oil Soap".....	J. C. Pierson, New York, N. Y.
50.	Misbranding of "Excelsior Water-Bug, Cockroach and Rat Paste".....	H. W. Ditman, New York, N. Y.
51.	Misbranding of "Hooper's Fatal Food for Roaches"	O. H. Jadwin & Sons, New York, N.Y.
52.	Adulteration and misbranding of "Lewy's Oriental Brand Camphorized Moth Crystals".....	Lewy Chemical Co., New York, N. Y.
53.	Misbranding of "The Great Western Bug Extermi- nator".....	Western Chemical Co., New York, N. Y.
54.	Alleged adulteration and misbranding of "P E A Co. Brand Insect Powder".....	Percy E. Anderson and Charles W. Anderson trading as P. E. Anderson & Co., New York, N. Y.
55.	Misbranding of "Sanitas".....	The Sanitas Co., New York, N. Y.
56.	Misbranding of "Inland Lime-Sulphur Spray".....	C. G. Betts Co., Spokane, Wash.
57.	Misbranding of "Kellogg's Ant Paste".....	Sylvanus H. Kellogg, Los Angeles, Cal.
58.	Misbranding of "Sanoc".....	Formacone Co., Newark, N. J.
59.	Adulteration and misbranding of "Hemingway's Pure Lead Arsenate".....	Hemingway's London Purple Co., New York, N. Y.
60.	Misbranding of "Dr. David Roberts Disinfectant".....	Dr. David Roberts Veterinary Co., Waukesha, Wis.
61.	Misbranding of "Whale Oil Soap".....	Blumauer-Frank Drug Co., Portland, Ore.
62.	Misbranding of Formaldehyde.....	J. T. Baker Chemical Co., Phillipsburg, N. J.
63.	Misbranding of "Sherwin-Williams Dry Powdered Arsenate of Lead".....	The Sherwin-Williams Co., Newark, N. J.
64.	Misbranding of "Dr. Hess Dip and Disinfectant".....	G. Hess and J. L. Clark, trading as Dr. Hess and Clark, Ashland, Ohio.

No.	Product.	Defendant or Claimant.
65.	Misbranding of Bordeaux Arsenate of Lead Mixture"	Thomsen Chemical Co., Baltimore, Md.
66.	Misbranding of "Bordeaux Mixture"	Do.
67.	Adulteration and misbranding of "Orchard Brand Atomic Sulphur Combined with Arsenite of Lead"	Do.
68.	Adulteration and misbranding of "Orchard Brand Arsenite Zinc"	Do.
69.	Adulteration and misbranding of "Orchard Brand Atomic Sulphur Fungicide"	Do.
70.	Misbranding of Lead Arsenate"	Fred L. Lavanburg, New York, N. Y.
71.	Misbranding of "White Tar Moth Balls"	The White Tar Co., New York, N. Y.
72.	Adulteration and misbranding of "Persian Insect Powder"	The Lewy Chemical Co., New York, N. Y.
73.	Misbranding of "Aphiscide"	Portland Seed Co., Portland, Ore.
74.	Misbranding of "Plaster Paris Green Mixture"	Southern Gypsum Co., North Holston, Va.
75.	Alleged adulteration and misbranding of "Purified Cyanide"	Powers-Weightman-Rosengarten Co., New York, N. Y.
76.	Misbranding of "London Purple"	Hemingway's London Purple Co., New York, N. Y.
77.	Adulteration and misbranding of Hemingway's Lead Arsenate"	Do.
78.	Misbranding of "Hemingway's Pure Lead Arsenate"	Do.
79.	Misbranding of "Sure Kill Poison Fly Paper"	Frank W. Briggs and Wm. A. Briggs, trading as F. W. Briggs & Co., Buffalo, N. Y.
80.	Misbranding of "Creolium"	The Capitol Food Co., Tiffin, Ohio.
81.	Misbranding of "Talbot's Scaley Leg Remedy"	The W. R. Talbott Chemical Co., Sandusky, Ohio.
82.	Adulteration and misbranding of "Rexo Dip"	The Tropical Oil Co., Cleveland, Ohio.
83.	Adulteration and misbranding of "Nico-Fume Liquid"	Kentucky Tobacco Product Co., Louisville, Ky.
84.	Adulteration and misbranding of "Fish Oil Soap"	Roberta K. Good, Philadelphia, Pa.
85.	Misbranding of "Tough-on-Flies"	The Crescent Chemical Co., Philadelphia, Pa.
86.	Misbranding of B. Howard Smith's "Dead Shot" cockroach destroyer.	B. Howard Smith, Kansas City, Mo.
87.	Adulteration and misbranding of "Kibler's Strictly Pure Arsenate of Lead"	Kibler-Lieber Co., Indianapolis, Ind.
88.	Misbranding of "Modoc Concentrated Lime Sulphur Solution"	The Modoc Co., Fernwood, Pa.

OHIO INSECTICIDE AND FUNGICIDE LAW.

To Regulate the Manufacture and Sale of Insecticides and Fungicides in Ohio.

Section 1. Each person, firm or corporation who manufactures, sells or offers for sale, in this state, arsenate of lead, Paris green, lime-sulphides, miscible combinations of mineral or vegetable oils, Bordeaux mixture or any insecticide or fungicide or essential ingredient thereof used for the control of insects or fungous diseases within the state, shall affix to each package in a conspicuous place on the outside thereof, a plainly printed or written certificate which shall state, in the case of solids, the number of net pounds, or in the case of paste arsenate of lead the number of net pounds on a fifty per centum water basis, or in the case of liquids, the number of gallons contained therein, the name, brand or trade-mark under which it is sold, or offered for sale, the name of the manufacturer and the place or places of manufacturing same. The certificate shall state also the percentages and chemical compositions of all essential substances or ingredients of said insecticides and fungicides or combinations of the same contained in said commodities, and in the case of lime-sulphur solutions the certificate on each package shall state the degree Baume and the per centum of sulphur. The certificate on each package shall be considered as constituting a guarantee to the purchaser of the contents therein.

Section 2. Before selling or offering for sale arsenate of lead, Paris green, lime-sulphides, miscible combinations of mineral or vegetable oils, Bordeaux mixture or any insecticide or fungicide or essential ingredient thereof used for the control of insects or fungous diseases within the state, each person, firm or corporation shall file with the Agricultural Commission of Ohio certified copies of the certificate required in the preceding section.

Section 3. The term insecticide as used in this act shall include any substance or mixture of substances intended to be used for preventing, destroying, repelling or mitigating any insects which may infest vegetation, man or animals, or households, or be present in any environment whatever. The term fungicide as used in this act shall include any substance or mixture of substances intended to be used for preventing, destroying, repelling or mitigating any and all fungi that may infest vegetation or be present in any environment whatsoever.

Section 4. It shall be unlawful for any person, firm or corporation to manufacture, sell or offer for sale in the state any arsenate of

lead, Paris green, lime-sulphides, miscible combinations of mineral or vegetable oils, Bordeaux mixture, or any insecticide or fungicide or essential ingredient thereof used for the control of insects and fungous diseases within the state, which is adulterated or misbranded within the meaning of this act.

Section 5. For the purpose of this act an article shall be deemed to be adulterated—

In the case of paste arsenate of lead: First, if it contains more than fifty per centum of water; second, if it contains total arsenic equivalent to less than twelve and one-half per centum of arsenic oxid; third, if it contains arsenic in water-soluble forms equivalent to more than seventy-five one hundredths per centum of arsenic and arsenious oxids; fourth, if any substances have been mixed and packed with it so as to reduce, lower or injuriously affect its quality or strength: Provided, however, that extra water may be added to arsenate of lead (as described in this paragraph) if the resulting mixture is labeled arsenate of lead and water, the percentage of extra water being plainly and correctly stated on the label.

In the case of powdered arsenate of lead: First, if it contains total arsenic equivalent to less than twenty-five per centum of arsenic oxid; second, if it contains arsenic in water soluble forms equivalent to more than one and one-half per centum of arsenic and arsenious oxids; third, if any substances have been mixed and packed with it so as to reduce, lower or injuriously affect its quality or strength.

In the case of Paris green: First, if it does not contain at least fifty per centum of arsenious oxid; second, if it contains arsenic in water-soluble forms equivalent to more than three and one-half per centum of arsenious oxid; third, if any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength.

In case of insecticides or fungicides, other than Paris green and lead arsenate: First, if its strength or purity fall below the professed standard or quality under which it is sold; second, if any substance has been substituted wholly or in part for the article; third, if any valuable constituent of the article has been wholly or in part abstracted; fourth, if it is intended for use on vegetation and shall contain any substance or substances which, although preventing, destroying, repelling, or mitigating insects, shall be injurious to such vegetation when used.

Section 6. The term misbranded as used herein shall apply to arsenate of lead, Paris green, lime-sulphides, miscible combinations of mineral or vegetable oils, Bordeaux mixture or any other insecticide or fungicide or essential ingredient thereof used for the control of insects or fungous diseases or any other purpose within the state, the

package or label of which shall bear any statement, design, or device regarding such article or the ingredients or substances contained therein which shall be false or misleading in any particular or which package shall be falsely branded as to the state, territory or country in which it is manufactured or produced.

For the purpose of this act an article shall be deemed to be misbranded: In the case of insecticides, arsenate of lead, Paris green and fungicides; First, if it be an imitation, or offered for sale under the name of another article; second, if it be labeled or branded so as to deceive or mislead the purchaser, or if the contents of the package as originally put up shall have been removed in whole or in part and other contents shall have been placed in such package; third, if in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package.

In the case of insecticides (other than Paris green and arsenate of lead) and fungicides: First, if it contains arsenic in any of its combinations or in the elemental form and the total amount of arsenic present (expressed as per centum of metallic arsenic) is not stated on the label; second, if it contains arsenic in any of its combinations or in the elemental form and the amount of arsenic in water-soluble forms (expressed as per centum of metallic arsenic) if not stated on the label; third, if it consists partially or completely of an inert substance or substances which do not prevent, destroy, repel, or mitigate insects or fungi and does not have the names and percentage amounts of each and every one of such inert ingredients plainly and correctly stated on the label: Provided, however, that in lieu of naming and stating the percentage amount of each and every inert ingredient, the producer may, at his discretion, state plainly upon the label the correct names and percentage amounts of each and every ingredient of the insecticides or fungicides having insecticidal or fungicidal properties, and make no mention of the inert ingredients, except in so far as to state the total percentage of inert ingredients present.

Section 7. It shall be unlawful for any dealer, agent, distributor or other person, who sells or disposes of any arsenate of lead, Paris green, lime-sulphides, miscible combinations of mineral or vegetable oils, Bordeaux mixture or any insecticide or fungicide or essential ingredient thereof used for the control of insects or fungous diseases within the state to adulterate, dilute, alter or change these materials in any way from the form as received in the original package.

Section 8. Before selling arsenate of lead, Paris green, lime-sulphides, miscible combinations of mineral or vegetable oils, Bordeaux mixture or any insecticide or fungicide or essential ingredient thereof used for the control of insects or fungous diseases within the

state, each person, firm or corporation who manufactures any of the aforementioned commodities shall each year pay to the Agricultural Commission of Ohio a license fee of twenty dollars with each certificate filed. Upon application and payment of such fee said board shall issue a license for the current year. All licenses shall expire on the 31st day of December each year. The payment of such license fee by a person, firm or corporation shall exempt an agent thereof from the requirements of this section.

Section 9. Each year the Agricultural Commission of Ohio shall cause to have taken samples of the different brands of arsenate of lead, Paris green, lime-sulphides, miscible combinations of mineral and vegetable oils, Bordeaux mixture or any insecticide or fungicide or essential ingredient thereof used for control of insects or fungous diseases within the state and the same shall be analyzed under the direction of the Agricultural Commission of Ohio. The expenses incurred thereof shall be paid by them from a fund arising from the payment of license fees required in the preceding section.

Section 10. For the purpose of analyses and comparison with the certificate deposited with it, and with the certificate on such package, the Agricultural Commission of Ohio, or a person appointed by it, may purchase in the open market of the state, any unbroken original package of any insecticide or fungicide, and may take samples from bulk goods of these materials in the possession of a dealer, consumer or transportation company within the state. Not less than one pound and not exceeding two pounds of solids, and not less than one pint or more than two quarts of liquids shall be taken from bulk goods.

Section 11. The Agricultural Commission of Ohio and such assistants, agents, experts and chemists, as it may duly authorize for the purpose, shall have the power to enter any car, warehouse, building, or any premises in the state where arsenate of lead, Paris green, lime-sulphides, miscible combinations of mineral and vegetable oils, Bordeaux mixture, or any insecticide or fungicide or essential ingredient thereof are kept, and open any package or vessel containing or supposed to contain said commodities and take therefrom samples for analysis upon tendering the value of said samples.

Section 12. Whoever sells, within this state, any arsenate of lead, Paris green, lime-sulphides, miscible combinations of mineral and vegetable oils, Bordeaux mixture or any insecticide or fungicide or essential ingredient thereof used for the control of insects or fungous diseases within the state without complying with the provisions of this chapter, or permits an analysis to be attached to any package thereof stating that it contains a larger percentage of any constituent thereof than it does in fact contain shall be fined not less

than fifty dollars nor more than two hundred dollars for the first offense and for any subsequent offense not less than two hundred dollars nor more than five hundred dollars.

In all prosecutions under this act, a justice of the peace, police judge or mayor shall have final jurisdiction as in cases of violation of laws relating to the adulterations of food and drink and dairy products.

Section 13. The attorney general or any prosecuting attorney shall prosecute all violations of this chapter.

Section 14. The Agricultural Commission of Ohio shall make an annual report of and may publish from time to time, analyses made of samples taken as provided in section 6, and the analyses guaranteed by the manufacturers. Such report shall contain a statement of monies received and expended from license fees collected for the sale of insecticides and fungicides. Any unexpected balance shall be credited to the agricultural fund.

STOP! LOOK! LISTEN!

A \$20.00 LICENSE FEE must be paid for each brand of INSECTICIDE or FUNGICIDE sold or offered for sale in Ohio.

When filling in application for license state percentages of each ACTIVE INGREDIENT and total per cent of INERT; or in lieu thereof the percentage of each INERT INGREDIENT without mentioning the ACTIVE. If product is 100% active not necessary to state Ingredient.

**AN ACT
CREATING THE
AGRICULTURAL COMMISSION
OF OHIO**

(915)

ACT CREATING THE AGRICULTURAL COMMISSION OF OHIO.

(Amended Senate Bill No. 178.)

AN ACT.

To create the Agricultural Commission of Ohio and to prescribe its organization, its powers and its duties, to repeal sections 368 to 381 inclusive, 776, 1079 to 1177 inclusive, 1387 to 1389 inclusive, and to amend sections 1390 to 1394 inclusive, 1405, 1411, 1421, 1423, 1424, 1435, 1437, 1438, 1445, 1446, 1453, 1454, 1455, 1460, 1485, 265, 485, 1313, 1850, 2269, 2274, 2616, 3357, 5782, 6087, 6088, 6089, 6091, 6336, 7965, 7965-1, 9916 to 9921, inclusive, 12521, 12523, 12672, 12673, 12743, 12757, 12794, and 12798 of the General Code.

Be it enacted by the General Assembly of the State of Ohio:

SECTION 1. There shall be an Agricultural Commission of Ohio and by that name the commission may sue and be sued. The Agricultural Commission shall consist of four members, three of whom shall be appointed by the governor with the advice and consent of the senate; and the fourth member shall be appointed by the Board of Trustees of the Ohio State University; but not more than two of the four shall be of the same political party; and all of whom shall be directly identified with agriculture or agricultural education. Within thirty days from the time that this act shall take effect, the governor shall with the advice and consent of the senate appoint a member who shall serve two years, another who shall serve four years, and another who shall serve six years; and thereafter each member appointed by the governor shall be appointed and confirmed for a term of six years. Vacancies shall be filled in the same manner for unexpired terms. They shall be subject to removal as may be provided by law. The member appointed by the Board of Trustees of the Ohio State University shall be appointed by them and removed by them as is provided by law for the appointment and removal of professors of the Ohio State University. The governor shall be ex-officio a member of this commission.

SECTION 2. Before entering upon the discharge of the duties of his office each commissioner shall take and subscribe to an oath of office, which oath in writing shall be filed in the office of the secretary of state.

SECTION 3. Each of the members of the Agricultural Commission of Ohio shall receive from the state an annual salary of five thousand dollars payable in the same manner as other state officers are paid.

SECTION 4. Before entering upon the duties of his office each member shall give a bond in the sum of twenty-five thousand dollars, with a sufficient surety or sureties which shall be approved by the treasurer of state; and after such approval such bond shall be filed with the treasurer of state. If such bond is executed by a surety company the premiums thereon shall be paid out of the funds appropriated for the expense of the commission. Each commissioner shall devote his entire time to the performance of the duties imposed upon him by this act.

SECTION 5. Immediately upon the appointment of the commission, and bi-

ennially thereafter, the commissioners shall meet at the office of the Agricultural Commission and elect a chairman, who shall serve for two years and until his successor is elected.

SECTION 6. Three members of the commission shall constitute a quorum to transact business. A vacancy shall not impair the right of the remaining commissioners to exercise all the powers of the commission as long as three remain.

SECTION 7. Any investigation, inquiry or hearing which the Agricultural Commission is empowered by law to hold or to undertake, may be held or undertaken by or before any one member of the commission or before any member or members of the commission. All investigations, inquiries, hearings, decisions, and orders made by any one or any two members of the commission shall when approved and confirmed by the Agricultural Commission be deemed to be the order of the Agricultural Commission, and each member shall be responsible to the commission for the general work of that one of the institutions or activities which the commission may allot to him; all matters of general policy shall be decided by the entire commission.

SECTION 8. The Agricultural Commission shall maintain its office in the state capitol in the city of Columbus and shall provide a suitable room or rooms, necessary office furniture, stationery, books, periodicals, maps, instruments and other necessary supplies. The Agricultural Commission may hold sessions at any place within the state. The necessary expense shall be audited and paid as other expenses are audited and paid.

SECTION 9. The Agricultural Commission is authorized to employ a secretary, heads of bureaus, experts, clerks, stenographers and other assistants and employes, and to fix their compensation and these and all similar acts involving expenditures of money shall be subject to the approval of the governor. The commissioners, secretary, experts, clerks, stenographers and other assistants and employes that may be employed, shall be entitled to receive from the state their actual and necessary traveling expenses while traveling on the business of the Agricultural Commission. Such expenses shall be itemized and certified to by the person who incurred the expense, and allowed by the Agricultural Commission.

SECTION 10. The secretary shall take and subscribe to an oath similar to that of the commissioners, keep full and correct records of all transactions and proceedings of the Agricultural Commission and perform such other duties as may be required by the commission.

SECTION 11. The Agricultural Commission shall succeed to and be possessed of the rights, authority and powers now exercised by the State Board of Agriculture, the secretary of the State Board of Agriculture, the Board of Live Stock Commissioners, the Board of Control of the State Agricultural Experiment Station, the State Dairy and Food Commissioner, the Commission of Fish and Game, the State Board of Veterinary Examiners and the State Board of Pharmacy, except such duties as are conferred on said State Board of Pharmacy by sections 1296, 1297, 1298, 1299, 1300, 1301, 1302, 1303, 1304, 1305, 1306, 1307, 1308, 1309, 1310, 1311 and 1312. The Board of Trustees of the Ohio State University shall arrange for the extension of the teachings of agriculture and domestic science of the university as provided in sections 7973 and 7974 of the General Code, and carry on the work and extension authorized and directed by such sections under the direction and supervision of the Agricultural Commission. The commission is empowered to make such transfers, changes and consolidations of the work of the above named departments as it may deem necessary. The commission shall also succeed to and be in control of all records, land, moneys, appropriations and other property, real or personal, now or hereafter held for the benefit of said respective departments of the state government, the same to be held in trust for the

state of Ohio. Said boards, officers and departments to whose powers and authority the Agricultural Commission succeeds shall on and after the 15th day of July, 1913, have no further legal existence, and the Agricultural Commission is hereby authorized and directed to assume and continue as successor of said respective boards, officers and departments, and shall continue the construction, control and management of all of said departments of the state government above enumerated, subject to the provisions of this act, and shall have power and authority to establish bureaus of fair administration; live stock diseases; nursery and orchard and bee inspection; fertilizer, lime, fungicide, insecticide and feedstuffs inspection; sanitary inspection; food inspection; statistics; chemistry and bacteriology; and it shall have power to establish a state chemical and bacteriological laboratory in which all analyses in connection with law enforcement may be made, and the commission is further authorized and empowered to establish such other bureaus and departments as it deems necessary.

SECTION 12. The member of the Agricultural Commission who is appointed by the Board of Trustees of the Ohio State University shall, subject to the control of the Trustees of the Ohio State University, have general charge of the College of Agriculture of the Ohio State University.

SECTION 13. The Agricultural Commission may accept and hold on behalf of Ohio any grant, gift, devise or bequest of money or property made to or for the use of the commission or for promoting any part of the public welfare that shall be under the supervision and control of the commission. The Agricultural Commission shall have full power to contract for and carry out the terms and conditions of any devise, grant, gift, or donation that may be made for the purpose of carrying out the objects and purposes of this act.

SECTION 14. On the first Thursday after the second Monday of January of each year, there shall be a meeting in Columbus of the Agricultural Commission of Ohio, together with the presidents, or authorized delegates of country agricultural societies organized under the laws of the state and conducted under the rules of the Agricultural Commission and holding fairs as provided by law, for the purpose of deliberation and consultation as to wants, prospects, and conditions of agriculture throughout the state. The Agricultural Commission shall provide a uniform method for the election of directors and officers of all county and district agricultural societies, receiving any support whatsoever out of the state or county treasuries, and provide rules and regulations under which such county agricultural societies shall be conducted. At such meeting the reports from county agricultural societies shall be delivered to the Agricultural Commission.

SECTION 15. In a county having no agricultural society so organized and conducted, the presidents or a majority of them, of the farmers' institutes of the county holding meetings under the direction of the Agricultural Commission may choose a representative to such annual meeting, who, upon a proper certificate of his appointment, shall be entitled to all the privileges conferred on representatives from county agricultural societies.

SECTION 16. The Agricultural Commission shall hold an annual exhibit of the agricultural and general productive industries of the state, and may make rules for the payments of premiums to exhibitors. The state agricultural fund shall be at the disposal of the Agricultural Commission for the improvement of the agricultural interests of the state. All moneys derived from the provision of this act shall be paid to the Agricultural Commission and by it paid into the state treasury upon the draft of the auditor of state and be credited to an agricultural division of the general revenue fund. When escheated property is legally reclaimed by an heir, the state agricultural fund shall be held subject to the

payment to the purchaser from the state of so much of the original purchase money as it received, with legal interest to the time of reclamation. The Agricultural Commission shall have the custody of the land, buildings, and other property at the state fair grounds at Columbus and shall use the same for agricultural purposes and may permit the use of the same by persons, firms, associations or corporations for such exposition purposes and under such conditions as the Agricultural Commission from time to time prescribes.

SECTION 17. The Agricultural Commission may collect and disseminate such information relative to agriculture, agricultural labor, waste and uncultivated land, undeveloped resources and decrease of rural population as it may deem wise for the purpose of promoting agricultural production within this state.

SECTION 18. The Agricultural Commission may confer and meet with officers of other states and officers of the United States on any matter pertaining to its official duties.

SECTION 19. The assessing officer shall furnish to the Agricultural Commission upon request from it, upon blanks furnished by the commission, such information as may be in their possession or may be obtained by them relative to agriculture, agricultural labor, waste and uncultivated lands, undeveloped resources and decrease of rural population, within their respective townships. Such information shall be obtained as nearly as possible by each assessing officer while engaged in the performance of his other official duties. No additional expense shall accrue because of the provisions of this section. The service performed agreeable to this section shall be considered a part of the duties of assessing officers. Each assessing officer before receiving compensation for services rendered shall file with the county auditor a written statement that to the best of his ability he has complied with the provisions of this section.

SECTION 20. The Agricultural Commission shall adopt reasonable and proper rules and regulations to govern its proceedings and to regulate the mode and manner of all investigations, inspections and hearings not otherwise specifically provided for.

SECTION 21. Sessions of the Agricultural Commission shall stand and be adjourned without further notice thereof on its records. All of the proceedings of the Agricultural Commission shall be shown on its records of proceedings, which shall be a public record, and all voting shall be by calling each member's name by the secretary and each member's vote shall be recorded on the record of proceedings as cast.

SECTION 22. The Agricultural Commission or any member thereof, the secretary and every person appointed by the commission to conduct investigations, inquiries or hearings shall, for the purposes contemplated by this act have power to administer oaths, certify to official acts, take depositions, issue subpoenas, compel the attendance of witnesses and the production of books, accounts, papers, records, documents and testimony.

SECTION 23. To carry out the purposes of the laws which it is required to administer, the Agricultural Commission, or any commissioner, or any person or persons employed by the commission for that purpose, shall, upon demand, have the right to inspect books, accounts, records and memoranda of any company, firm, corporation, person, association or copartnership, subject to the provisions of such laws, and to examine under oath, any person, including any officer, agent or employe of any such company, firm, corporation, person, association or copartnership. Any person, other than one of such commissioners, who shall make such demand, shall produce his authority to make such inspection.

SECTION 24. The Agricultural Commission may require, by order or subpoena, to be served on any company, firm, corporation, person, association or copartnership

in the same manner that a summons is served in a civil action at such time and place as it may designate, the production of any books, accounts, papers or records kept by it in any office or place within or without the state of Ohio, or verified copies in lieu thereof, if the commission shall so order, in order that an examination thereof may be made by the commission or under its direction. Any such company, firm, corporation, person or copartnership, failing or refusing to comply with any such order or subpoena, shall, for each day it so fails or refuses, forfeit and pay into the state treasury a sum of not less than fifty dollars nor more than five hundred dollars.

SECTION 25. For the purpose of making any investigation with regard to any company, firm, corporation, person, association or copartnership, subject to the provisions of the laws which the Agricultural Commission is required to administer, the commission shall have power to appoint, by an order in writing, an agent whose duties shall be prescribed in such order. In the discharge of his duties such agent shall have every power whatsoever of an inquisitorial nature granted by law to the Agricultural Commission and the same powers as a notary public, with regard to the taking of depositions; and all powers given by law to a notary public relative to depositions are hereby given to such agent. Except in his report to the Agricultural Commission, or when called on to testify in any court or proceeding, any such agent who shall divulge any information acquired by him in respect to the transactions, property or business of any company, firm, corporation, person, association or copartnership, while acting or claiming to act under such order, shall be fined not less than fifty dollars nor more than one hundred dollars, and shall thereafter be disqualified from acting as agent in any other capacity under the appointment or employment of the Agricultural Commission.

SECTION 26. The Agricultural Commission may conduct any number of such investigations, contemporaneously, through different agents, and may delegate to any agent the taking of all testimony bearing upon any investigation or hearing. The decision of the Agricultural Commission shall be based upon its examination of all testimony and records. The recommendations made by an agent shall be advisory only, and shall not preclude the taking of further testimony, if the Agricultural Commission so order, nor further investigation.

SECTION 27. The attorney general shall be the legal adviser of the Agricultural Commission in all matters relating to its powers and duties and the secretary of state shall furnish to the commission such stationery as it requires for the proper discharge of its duties, and blank books necessary to record its transactions.

SECTION 28. Upon the request of the Agricultural Commission, the attorney general, or under his direction, the prosecuting attorney of any county, shall aid in any investigation, hearing or trial had under the laws which the commission is required to administer, and shall institute and prosecute all necessary actions or proceedings for the enforcement of such laws, and for the punishment of all violations thereof, arising within the county in which he was elected.

SECTION 29. On the first day of January, April, July and October of each year, the Agricultural Commission shall file with the auditor of state a verified, itemized, quarterly statement of all receipts and expenditures. In its annual report, the Agricultural Commission shall make a complete statement of its financial transactions.

SECTION 30. The Agricultural Commission shall promote and protect the live stock interests of the state, prevent the spread of dangerously infectious and contagious diseases, and co-operate with the Bureau of Animal Industry of the United States Department of Agriculture in such work. The Agricultural Commission may use all proper means in the prevention of the spread of dangerously infec-

tious and contagious diseases among domestic animals and in providing for the extermination of such diseases.

SECTION 31. The Agricultural Commission shall appoint a competent veterinarian who shall perform the duties prescribed by the commission and be subject to its rules and regulations. The veterinarian so appointed shall receive such compensation as the commission may fix. In case of an outbreak of disease among animals, if it deem it advisable, the commission may appoint temporarily additional veterinarians or other persons for special work in connection with its duties, and fix their compensation.

SECTION 32. Sheriffs and constables in the several counties shall execute all lawful orders of the Agricultural Commission in such counties, and immediately communicate to the commission any notice given them under the provisions of law relating to live stock.

SECTION 33. In the enforcement of the laws relating to the promotion and protection of the live stock interests of this state, and the rules and regulations adopted by the Agricultural Commission, its authorized officers, agents or employes may enter a building where live stock is housed, a railway car, boat or other conveyance, used in the transportation of live stock, and upon any premises public or private.

SECTION 34. If a person owns or has in charge an animal which he knows or has reason to believe is affected with a dangerously contagious or infectious disease, he shall give notice of such fact immediately to the Agricultural Commission, a member thereof, or the sheriff or constable of the proper county.

Thereupon the Agricultural Commission shall cause a proper examination to be made by a competent veterinarian of the diseased or infected animals, and, if the disease affecting such animals is found to be dangerously contagious or infectious, the commission shall order the diseased animals and those which have been exposed to the contagion to be strictly quarantined, in charge of such person as the commission shall designate, and order any premises or farms where diseased animals are found or have been recently kept to be put in quarantine. No domestic animals shall be brought to or removed from the premises or places so quarantined.

SECTION 35. All proper expenses incurred in the quarantining of animals under the provisions herein relating to the Agricultural Commission shall be paid by the owners of such animals. If such owners refuse to pay such expenses after demand made by the order of the commission an action in the name of the state of Ohio may be brought to recover such expenses for the use of the commission.

SECTION 36. If, in order to prevent the spread of any dangerously contagious and infectious disease among the live stock of the state, the Agricultural Commission deems it necessary to destroy animals affected with or which have been exposed to dangerously contagious or infectious disease, it shall determine what animals shall be killed and appraise or cause them to be appraised by disinterested citizens as provided by law. After being appraised, the commission shall cause such animals to be killed and their carcasses disposed of in such manner as it directs, but no animal shall be killed under the provisions of this section until it has been examined by a competent veterinarian in the employ of the commission, and the disease with which it is affected or to which it has been exposed adjudged a dangerous and contagious malady.

SECTION 37. If an animal is killed under the provisions herein relating to the Agricultural Commission, the compensation to be made for the slaughtered animal shall be computed on the basis of the actual value of such animal at the time of killing; for an animal that has been kept in the same building or enclosure, two-thirds of such value, and for any other animal, the full value of such animal

without reference to the suspicion of contagion. No compensation, however, shall be made to a person who has brought animals into this state affected with such contagious disease, or from a district in which such contagious disease existed, or who has wilfully concealed the existence of such disease among his stock or on his premises, or who by wilful neglect or purposely has contributed to the spread of such contagion. In case of the destruction of a horse, mule or ass affected with glanders or farcy, no compensation for it shall be made, if it was so diseased when it passed into possession of its owner. In appraising animals to be killed as hereinbefore provided, no allowance shall be made because such animals are thoroughbred or pedigreed stock.

SECTION 38. When approved by the Agricultural Commission all claims of owners of animals killed under the provisions herein relating to the commission shall be paid from funds appropriated by the general assembly for that purpose.

SECTION 39. Whenever the governor, upon receipt of information from the Agricultural Commission believes that a dangerous, contagious or infectious disease has become epidemic in certain localities in other states, territories or countries, or that there are conditions which render domestic animals of such infected district liable to convey such diseases, he shall prohibit, by proclamation, the importation of live stock of the kind diseased into the state, except under such regulations as may be prescribed by the commission and approved by him.

SECTION 40. The Agricultural Commission may accept, on behalf of the state, the rules and regulations prepared by the Commissioners of Agriculture under authority of an act of congress, and co-operate with the authorities of the United States in the enforcement of their provisions.

SECTION 41. A person, firm or corporation who fails to comply with the rules of the Agricultural Commission or to respect its lawful regulations, when notified so to do, shall forfeit and pay not less than fifty dollars nor more than five hundred dollars.

SECTION 42. Whoever, being a person, firm or corporation, having in his possession or under his control, an animal which he knows or has reason to believe is affected with a dangerously contagious or infectious disease, fails or neglects to give notice of such fact as provided by law, or brings into this state, or sells or disposes of an animal which he knows to be so affected or to have been exposed to a dangerously contagious or infectious disease, within three months after being so exposed, or moves an animal from quarantine if placed in quarantine by the Agricultural Commission, or moves an animal from a district declared by the commission to be infected with a dangerously contagious or infectious disease, or brings into the state from any district declared by the commission to be affected with such diseases any animal of the kind so declared to be affected, except under such conditions as the commission prescribes, shall be fined not more than five hundred dollars.

SECTION 43. Whoever sells or otherwise disposes of a horse, mule or ass which he knows or has reason to believe is affected with glanders or farcy or which has been adjudged to be so affected by the Agricultural Commission upon a report made to it by a competent veterinarian in its employ, or secretes such animal or fails to keep it securely isolated from other horses, mules or asses shall be fined not more than five hundred dollars and shall be liable to any person injured thereby for all damages sustained by reason of such violation. Whoever violates any provision herein relating to the Agricultural Commission for the violation of which no penalty has been provided shall be fined not less than fifty dollars nor more than two hundred dollars.

SECTION 44. The Agricultural Commission may make such regulations as it deems necessary for the prevention and control of insect pests or plant diseases.

The term "nursery stock" as used in the sections herein relating to nursery and orchard inspection, includes trees, shrubs, plants, vines, buds, scions and cuttings commonly grown in nurseries and orchards except greenhouse plants and cuttings thereof, bulbs, flowers and vegetable plants. The terms "insect pests" and "plant diseases" as used in such section include San Jose scale, peach yellows, black knot and other dangerously injurious insect pests and plant diseases.

SECTION 45. The Agricultural Commission shall appoint a competent entomologist as chief inspector and such assistant inspectors as it deems proper. The Agricultural Commission shall have charge of the inspection of nurseries, orchards and all other premises whereon trees, shrubs, plants and vines are grown, except greenhouse plants and cuttings thereof, bulbs, flowers and vegetable plants. It may investigate, or cause to be investigated, outbreaks of insect pests or plant diseases, cause suitable measures to be taken for their eradication or control, devise, test and demonstrate practical remedies for their suppression, and publish the results of such investigations, together with such other information as it deems necessary.

SECTION 46. On or before the first day of July of each year each nurseryman or other person engaged in growing nursery stock for sale within the state, shall file in the office of the Agricultural Commission an application for the inspection of such nursery stock. Before September 15th of each year or as often as the Agricultural Commission deems necessary, it shall examine or cause to be examined the nursery stock of each person whose application for inspection has been filed. The failure to file such application or the disposal of uninspected stock by sale or gift shall be a violation of this section. Each nurseryman or other person importing plants or nursery stock from foreign countries shall notify the Agricultural Commission of such shipment, the date of arrival, nature of the shipment, name and address of the shipper and shall hold such shipment unopened until duly inspected and released by the chief inspector. Such inspection shall be made within four days from the date of arrival of such shipment. The provisions of this section shall not apply to greenhouse plants and cuttings thereof, bulbs, flowers and vegetable plants.

SECTION 47. If, upon examination, the nursery stock and premises of such applicant appear to be free from insect pests and plant diseases, the Agricultural Commission through the chief inspector, shall before September 15, issue to the owner or lessee thereof a certificate of inspection valid for one year from that date, unless revoked, provided there has been received from each applicant, growing five acres or less of nursery stock, the sum of five dollars, and from each applicant growing more than five acres of nursery stock, the sum of ten dollars, and in addition thereto five dollars for each day or fraction thereof required to complete the inspection after the first day. No fee shall be required for the inspection of orchards from which scions or cuttings are sold. If, upon examination, any insect pests or plant diseases are found upon such nursery stock the Agricultural Commission shall order and enforce such treatment as it deems sufficient. As soon thereafter as the efficiency of treatment can be determined, such nursery stock shall be reinspected upon the owner filing application for the same.

SECTION 48. Upon written request of the owner of nursery stock for which a certificate of inspection has been issued as provided in section 47, the Agricultural Commission shall also issue a certificate of fumigation. When any nursery stock is found to be slightly infested with San Jose scale or any insect pest which can be destroyed by fumigation, the Agricultural Commission may at its discretion, permit the disposal of such stock within the state under official certificate of fumigation, and upon receipt by the nurseryman of the written consent of the purchaser.

SECTION 49. Annually, each agent, or other person engaged in the sale or delivery of nursery stock within this state, who is the authorized representative of any nursery or dealer in nursery stock, shall file in the office of the Agricultural Commission, a statement under oath that such stock was received by him accompanied with a valid certificate of inspection or fumigation. He shall submit proper credentials from the nurseryman or dealer represented and obtain an agent's license which will be issued upon payment of a fee of one dollar to the Agricultural Commission. Said license shall become invalid on the expiration of the certificate covering the stock sold.

SECTION 50. Annually each dealer, person or firm engaged in the sale or delivery of nursery stock within the state, who is not the authorized representative of any nurseryman, shall file in the office of the Agricultural Commission a statement under oath, that such stock will be procured from nurserymen holding valid official certificates of inspection or fumigation. Such statement shall contain the names of nurserymen or the sources from which stock will be procured and the location of the packing or sale grounds from which the stock will be distributed. This statement must be accompanied by a fee of five dollars, upon receipt of which a dealer's certificate shall be issued by the Agricultural Commission. This certificate may be attached to all shipments of nursery stock made to points within the state, and shall become invalid on September 1, following date of issuance. The failure to pay required fees, to file such statements or the delivery of nursery stock after the certificate under which it was received has become invalid shall be a violation of this section.

SECTION 51. The provisions of the preceding section shall not apply to a person engaged in the sale or delivery of stock from a nursery within this state if the owner of such nursery holds a valid certificate of inspection and such stock is delivered direct from the nursery to the grower in the original package.

SECTION 52. If a nurseryman or other person within the state ships or delivers any nursery stock except for scientific purposes, he shall place upon each car load, box, bale, or package, a copy of his certificate, issued by the Agricultural Commission that such stock is apparently free from insect pests and plant diseases, or a copy of a certificate of fumigation, issued by the Agricultural Commission, stating that such stock has been fumigated under the supervision of the Agricultural Commission. Changing or defacing a certificate, placing it on uncertified stock, or using it after the date of its expiration or revocation shall be a violation of this section.

SECTION 53. Each car, package or box containing nursery stock shipped or conveyed into this state shall be plainly labeled on the outside with the names of the consignor and consignee, and be accompanied with a certificate that the contents thereof have been inspected or fumigated by a duly authorized state or government officer, and that the stock therein contained is apparently free from insect pests or plant diseases.

SECTION 54. The certificate accompanying nursery stock shipped or conveyed into the state shall be prima facie evidence of the fact therein stated; but if the Agricultural Commission has reason to believe that such stock is infested or infected, it may cause it to be examined, and for such purpose may enter any car, depot, warehouse, or other structure containing such nursery stock. If found to be infested or infected with insect pests or plant diseases, it shall be seized and the shipper thereof be notified to remove it from the state. If it be not removed within ten days from seizure it may be destroyed.

SECTION 55. If a nursery stock is shipped or conveyed into this state without such certificate of inspection or fumigation affixed to the outside of the package, box or car containing it, the railroad, express or steamboat company, or person carrying such stock, shall report such fact within twenty-four hours to the Agricultural Commission. No such stock shall be delivered until it has been ex-

amined by the Agricultural Commission and certified to be apparently free from insect pests or plant diseases. The failure by an agent, common carrier or other person to give such notice as herein required shall be a violation of this section.

SECTION 56. Upon the application of a nurseryman or other person for inspection as provided in section 47, or upon the written request of a free-holder or lessee resident of this state, the Agricultural Commission shall cause nursery stock and premises of the applicant or petitioner and all premises in dangerous proximity thereto, to be examined. In the prosecution of official duties the Agricultural Commission may enter within reasonable hours upon any premises or into any building containing nursery stock. If an examination discloses the presence of insect pests or plant diseases, the Agricultural Commission shall notify the owner or lessee of the premises of such fact by mailing a notice to his usual postoffice address. The notice shall specify the nursery stock to which treatment shall be applied and the time within which the order of the Agricultural Commission must be complied with.

If the owner of such nursery stock fails to apply such treatment in a satisfactory manner and within the time specified, such treatment may be given under the directions of the Agricultural Commission, and the costs thereof certified to the auditor of the county in which the property is located. The costs so certified shall be a lien on such premises, be collected by the county treasurer as taxes, and paid to the Agricultural Commission.

SECTION 57. If the Agricultural Commission orders growing nursery stock to be destroyed, and the owner fails for ten days after notice to comply with the order, the Agricultural Commission shall commence an action without delay in the probate court of the county in which it is located by filing an affidavit setting forth that such stock is infested or infected with insect pests or plant diseases, a description of the premises whereon it is located, the name of the owner or lessee thereof, and the names of all persons having an interest in such premises or nursery stock. In case of nursery stock, the affidavit shall also state the name of the person, firm or corporation in whose possession it was found, that ten days have elapsed since an order was made for its destruction and that such order has not been obeyed.

SECTION 58. Upon the filing of the affidavit provided for in section 59, the probate judge shall issue a summons for the persons named therein, designating a time to make answer to such complaint, not exceeding five days from the date of the summons. The summons shall be directed to and served by the sheriff of the county, may be served by him in any county of the state, and shall be served and returned as directed by the probate court.

SECTION 59. At the time fixed in such summons, if a jury is not waived, the probate court shall order a jury to be drawn, summoned and empaneled as in other civil cases in such court. The state of Ohio shall be plaintiff and the person named in the affidavit shall be defendant; no pleading other than the affidavit shall be required, and the issue shall be whether such nursery stock is infested or infected with insect pests or plant diseases. If the jury finds that the order of the Agricultural Commission for the destruction of such nursery stock should be obeyed, it shall return a verdict for the plaintiff; otherwise, it shall return a verdict for the defendant.

SECTION 60. If the verdict of the jury is for the plaintiff, the court shall enter judgment against the defendant for costs, cause execution to be issued therefor, and issue an order to the Agricultural Commission to enforce the order by it made. If the verdict is for the defendant, the action shall be dismissed, the order for the destruction of the property annulled, and the costs ordered paid by the Agricultural Commission. In taxing and apportioning costs, the probate court shall have the same powers as are conferred by law upon the court of common pleas.

SECTION 61. Whoever fails or refuses to destroy any nursery stock within ten

days after the probate court has issued its order to the Agricultural Commission, as provided in the preceding section, hinders or obstructs the carrying out of any provision relating to the inspection of nursery stock, or violates any such provisions shall be fined not less than ten dollars nor more than one hundred dollars for the first offense and not less than fifty dollars nor more than three hundred dollars for any subsequent offense, and be committed until such fine and costs of prosecution are paid.

SECTION 62. The probate court of each county shall have original and final jurisdiction in prosecutions under the provisions herein relating to the inspection of nursery stock. Such court shall be open at all times for such purposes regardless of the terms fixed therein for the trial of criminal cases, and the complainant shall not be required to give security for costs. The prosecuting attorney of each county, or the attorney general shall conduct such prosecutions, and all fines recovered therein shall be paid to the Agricultural Commission.

SECTION 63. All moneys derived from the provisions of sections 44 to 63, inclusive, of this act shall be paid to the Agricultural Commission and by it deposited in the state treasury to the credit of the agricultural fund, and to be expended in promoting and protecting the horticultural interest of the state. The Agricultural Commission shall make an annual report to the governor of the operations of the division of nursery and orchard inspection. The report shall state the number of nurseries inspected, the number of certificates issued, the number of trees treated and number destroyed and such other information as it deems proper.

SECTION 64. Each person, firm or corporation desiring to sell or offer for sale within this state any feed stuffs shall furnish each car load or quantity in bulk thereof, or affix to each package thereof in a conspicuous place thereon, a plainly printed certificate of the number of net pounds in each car or quantity in bulk, or in each package, the name or trademark under which it is sold, the name of the manufacturer or shipper, the place of manufacture and a chemical analysis of the product to be sold. Such analysis shall state the percentage of crude protein, allowing one per cent. of nitrogen for six and one-fourth per cent. of the protein, of crude fat and of crude fibre. Such certificate shall also state the proportions of corn, oats, rye, wheat, wheat bran, wheat middlings, cotton seed meal, linseed meal, oat hulls, rice hulls, corn cob, or other product contained in such feed stuffs.

SECTION 65. Before selling or offering for sale any feed stuffs within this state, each person, firm or corporation shall file with the Agricultural Commission a certified copy of the certificate required by it by the preceding section, and deposit with or forward prepaid to it a sealed glass jar containing not less than one pound of such feed stuffs with an affidavit that this quantity so deposited is a fair sample of the product to be sold.

SECTION 66. For the privilege of selling or offering for sale within this state any feed stuffs, a person, firm or corporation shall pay on or before the first day of April of each year a license fee to the Agricultural Commission, for the sale of each brand of feed stuffs, twenty-five dollars. Upon an application and the payment of such fee, the Agricultural Commission shall issue a license for the current year. All licenses shall expire on the thirty-first day of December of each year. The payment of a license fee by a person, firm or corporation shall exempt an agent thereof from the requirements of this section.

SECTION 67. The term "feed stuffs," as used in this act includes the following and similar articles of commerce: linseed meal, cotton seed meal, pea meal, cocoanut meal, rice meal, gluten meal, gluten feeds, dried brewers grain, malt sprouts, hominy feeds, cerealine feeds, oat feeds and mixed feeds; but such term shall not include the following if sold as distinct articles of commerce, and not mixed with other substances: hay, straw, whole seeds, mixed meals, made directly from the entire grains of wheat, rye, barley, oats, Indian corn, beans, buckwheat, broom corn, wheat bran or middlings, and pure grains mixed and ground together.

SECTION 68. Each year at least one analysis shall be made of each brand of feed stuffs sold within this state. All such analyses shall be made under the direction of the Agricultural Commission, and the expenses thereof paid by such commission from a fund arising from the payment of license fees required by section 66.

SECTION 69. For the purpose of analysis and comparison, the Agricultural Commission, or a person appointed by it, may take a quantity not exceeding two pounds from any car load, quantity in bulk or package of feed stuffs for sale within this state and in the performance of this duty such commission or person appointed by it, may enter a car, a warehouse, building or other structure containing such feed stuffs.

SECTION 70. A person, firm or corporation which sells or offers for sale any kind of meal, ground grain, bran or middlings, adulterated with any other substance shall plainly state on each package thereof the proportions and kinds of adulterants used therein. Whoever violates a provision of this section shall be fined not less than ten dollars nor more than two hundred dollars for the first offense, and not less than twenty-five dollars nor more than five hundred dollars for each subsequent offense.

SECTION 71. Whoever sells or offers for sale within the state feed stuffs containing a smaller percentage of any of the constituents thereof than it is certified to contain, shall be fined not less than one hundred dollars nor more than two hundred dollars, and shall be liable for damages sustained by the purchaser thereof. A deficiency of two per cent. of crude protein or of crude fat, or an excess of two per cent. of crude fibre in an analysis of feed stuffs, shall not be evidence of a fraudulent intent.

SECTION 72. The Agricultural Commission shall prosecute all violations of sections 64, 66, 70 and 71. Such prosecutions may be before a justice of the peace, police judge or mayor as in cases of violation of laws relating to the adulteration of food and drink and dairy products.

SECTION 73. Each person, firm or corporation who manufactures, sells or offers for sale in the state a commercial fertilizer which means any substance for fertilizing or manurial purposes, except barn yard manure, marl, lime and plaster, shall affix to each package in a conspicuous place on the outside thereof, a plainly printed certificate which shall state the number of net pounds contained therein, the name, brand, or trademark, under which it is sold, or offered for sale, the name of the manufacturer, with his or its postoffice address. Such certificate shall contain also a chemical analysis which shall state the minimum percentages guaranteed of ammonia, of potash soluble in water, of phosphoric acid in available form, comprising the soluble and reverted, and of insoluble phosphoric acid, the sources of ammonia and the sources of insoluble phosphoric acid. In bone, tankage and basic slag unmixed with other material the phosphoric acid shall be claimed only as total phosphoric acid. In untreated phosphoric rock and other mineral phosphoric materials, the phosphoric acid shall be claimed only as insoluble phosphoric acid. When any commercial fertilizer, sold or offered for sale in this state, contains muck, peat, pulverized leather, hair, ground horn or wool waste or other materials in which the ammonia is largely unavailable, such certificate shall state explicitly such fact.

SECTION 74. No other form of analysis, and no duplication of terms or the equivalent thereof in other terms shall be used except that the nitrogen equivalent to the ammonia may be stated. No percentages higher than the lowest actually guaranteed shall be affixed to a package printed upon a bag or used in printed matter descriptive of such fertilizer. No false or misleading name, brand or trademark shall be used in designating a commercial fertilizer, or a name, brand or trademark indicating that the essential ingredients thereof were obtained from bone or animal substance, if the source thereof was wholly or in part a mineral

substance. Any material in which the organic matter has been destroyed by heat shall be deemed mineral substance.

SECTION 75. Before selling or offering for sale any commercial fertilizer within this state, each person, firm or corporation shall file with the Agricultural Commission a certified copy of the certificate required in section 73.

SECTION 76. No commercial fertilizer shall be sold or offered for sale if the percentage of any ingredient, element or constituent is less than the minimum percentage claimed or guaranteed; provided that there may be a deficiency of six per cent. of the amount claimed in any one ingredient before evidence of fraudulent intent shall be presumed; if there is a corresponding excess in the other ingredients claimed on the basis of the following equivalents in value: One part of ammonia shall be deemed equivalent to three parts of available phosphoric acid; one part of ammonia shall be deemed equivalent to three parts of potash; one part of ammonia shall be deemed equivalent to six parts of insoluble phosphoric acid from animal matter; one part of ammonia shall be deemed equivalent to twelve parts of insoluble phosphoric acid from mixed animal and mineral matter; in bone or tankage one part of ammonia shall be deemed equivalent to five parts of total phosphoric acid.

SECTION 77. Before selling or offering for sale within this state a commercial fertilizer, a person, firm or corporation shall pay each year a license fee to the Agricultural Commission for the sale of each brand thereof thirty dollars. Upon application and payment of such fee, the commission shall issue a license for the current year. All licenses shall expire on the 31st day of December of each year. The payment of such license fee by a person, firm or corporation shall exempt an agent thereof from the requirements of this section.

SECTION 78. Each year at least one analysis shall be made of each brand of commercial fertilizer sold within this state. All such analyses shall be made under the direction of the Agricultural Commission and the expenses thereof paid by the commission, from a fund arising from the payment of license fees provided for in the preceding section.

SECTION 79. For the purposes of analysis and comparison with the certificate deposited with it and with the certificate on such package the Agricultural Commission, or a person appointed by it, shall take a quantity of not less than one pound and not exceeding two pounds, from packages of commercial fertilizer exposed or offered for sale within this state, or in the possession of a dealer, consumer or transportation company. Such sample shall be taken from at least five per cent. of the sacks or other packages comprising the whole lot sampled. If there are less than one hundred sacks in the lot sampled, samples shall be taken from not less than five sacks, if there are less than five sacks in the lot sampled, samples shall be taken from not less than three sacks.

SECTION 80. Any person not a dealer in, or agent for a fertilizer who purchases a commercial fertilizer in this state for his own use, and not for sale, may have an analysis thereof made under the direction of the Agricultural Commission.

SECTION 81. A sample for such analysis shall be taken by the purchaser in the presence of the person, firm or agent selling the fertilizer, from at least ten per cent. of the sacks or other packages comprising the whole lot purchased. If there are less than one hundred sacks in the lot purchased, samples shall be taken from not less than ten sacks; and if there are less than ten sacks in the lot purchased, samples shall be taken from each sack, and all such samples shall be taken in the manner required by the Agricultural Commission. If the person, firm or agent refuses to witness the taking thereof, the samples may be taken in the manner described in the presence of two disinterested witnesses, who shall certify to the manner of taking such samples.

SECTION 82. The samples shall be taken at the time and place of delivery to the purchaser, from dry, undamaged goods, and from packages or sacks not there-

tofore opened, broken or resacked and thoroughly mixed. At least two pounds thereof must be put into two cans or jars, marked to identify it and to show by whom sent and shall be securely sealed and forwarded by express, all charges prepaid to the Agricultural Commission together with the printed certificate from one of the bags or packages so sampled with the name and address of the person or firm from whom the fertilizer was purchased and the amount purchased, accompanied by a fee of one dollar for each element for which analysis is asked.

SECTION 83. The purchaser shall also send with the sample a certificate signed by himself and two disinterested witnesses, that the sender has purchased the fertilizer for his own use and not for sale, and that the sample was taken in the manner prescribed in sections 81 and 82.

SECTION 84. If a sample shall have been submitted for analysis without complying with the requirements of the preceding sections, the Agricultural Commission in its discretion may accept such sample for analysis if it believes it is a fair sample of the fertilizer delivered to the purchaser.

SECTION 85. The Agricultural Commission and such assistants, agents, experts and chemists, as it may duly authorize for the purpose, shall have the power to open any package or vessel containing or supposed to contain any commercial fertilizer, and take therefrom samples for analysis upon tendering the value of said samples.

SECTION 86. Whoever sells, or offers for sale, within this state, a commercial fertilizer without complying with the provisions of this chapter relating to commercial fertilizers, or permits an analysis to be attached to any package thereof, stating that it contains a larger percentage of any constituent thereof than it does in fact contain, except as provided in section 76, shall be fined not less than fifty dollars nor more than two hundred dollars for a first offense, and for a subsequent offense not less than two hundred dollars nor more than five hundred dollars or imprisoned not more than six months or both. In all prosecutions under this act, a justice of the peace, police judge or mayor, shall have final jurisdiction as in cases of violation of laws relating to the adulteration of food and drink and dairy products. The Agricultural Commission shall rest its prosecution under this act on samples drawn, as provided in section 79.

SECTION 87. The Agricultural Commission shall, when notified in writing by the owner of an apiary, or by any three disinterested taxpayers, examine all reported apiaries, and all others in the same locality not reported, and ascertain whether or not the disease known as American foul brood or European foul brood, or any other disease which is infectious or contagious in its nature, and injurious to honey bees in their egg, larval, pupal or adult stages exist in such apiaries; and if satisfied of the existence of any such diseases it shall give the owners or caretakers of the diseased apiaries full instructions how to treat such cases as in the inspector's judgment seems best.

SECTION 88. The Agricultural Commission shall visit all diseased apiaries a second time, after ten days, and, if need be, burn all colonies of bees that it may find not cured of such disease, and all honey and appliances which would spread disease, without recompense to the owner, lessee, or agent thereof.

SECTION 89. If the owner of an apiary, honey or appliances wherein disease exists shall sell, barter, or give away or move without the consent of the inspector any diseased bees (be they queens or workers), colonies, honey, or appliances, or expose other bees to the danger of such disease, such owner shall, on conviction thereof be fined not less than fifty dollars nor more than one hundred dollars, or imprisoned not less than one month nor more than two months or both.

SECTION 90. For the enforcement of the provisions of this act, the Agricultural Commission shall have access, ingress and egress to all apiaries or places where bees are kept; and any person or persons who shall resist, impede or hinder in any way the commission in the discharge of its duties under the provisions of this act shall, on conviction thereof, be fined not less than fifty dollars nor

more than one hundred dollars, or imprisoned not less than one month nor more than two months or both.

SECTION 91. After inspecting infected hives or fixtures or handling diseased bees, the inspector of the Agricultural Commission or his assistant shall, before leaving the premises or proceeding to any other apiary, thoroughly disinfect any portion of his own person and clothing and any tools or appliances used by him which have come in contact with infected material, and shall see that any assistant or assistants with him have likewise thoroughly disinfected their persons and clothing and any tools and implements used by them.

SECTION 92. It shall be the duty of any person in the state of Ohio, who is engaged in the rearing of queen bees for sale, to use honey in the making of candy for use in mailing cages which has been boiled for at least thirty minutes. Any such person engaged in the rearing of queen bees shall have his queen rearing apiary or apiaries inspected at least twice each summer season; and on the discovery of the existence of any disease which is infectious or contagious in its nature and injurious to bees in their eggs, larval, pupal or adult stages, such person shall at once cease to ship queen bees from such diseased apiary until the Agricultural Commission shall declare the said apiary free from all disease. Any person engaged in the rearing of queens who violates the provisions of this section shall, on conviction thereof, be fined not less than one hundred dollars nor more than two hundred dollars.

SECTION 93. The Agricultural Commission shall maintain a state agricultural experiment station for the prosecution of practical and scientific research in agriculture and forestry and the development of the agricultural resources of the state. It shall be known as the "Ohio Agricultural Experiment Station."

SECTION 94. The Agricultural Commission shall appoint a director of the experiment station who shall be a person of acknowledged ability and training in the principles and practice of scientific agriculture. It shall fix the terms of office and salaries of all officers and employes of the station and upon written charge may remove them.

SECTION 95. The director shall have control of the affairs of the station, and be responsible to the Agricultural Commission for the management of all its departments. With the approval of the Agricultural Commission he shall appoint chiefs of departments, assistants and other employes necessary for the proper management of the station and shall assign them to their respective duties. He may suspend an officer or employe of the station for cause, which suspension with the reasons therefor he shall immediately report to the Agricultural Commission for its final action.

SECTION 96. The title of all lands for the use of the experiment station shall be conveyed in fee simple to the state, but no title shall be conveyed for such purposes unless the attorney general is satisfied that it is free from defects and incumbrances.

SECTION 97. In order to demonstrate the practical application under local conditions of the results of the investigations of the Ohio Agricultural Experiment Station, and for the purpose of increasing the effectiveness of the agriculture of the various counties of the state, the commissioners of any county in the state are hereby authorized and empowered to establish an experiment farm within such county as hereinafter provided for.

SECTION 98. The county experiment farms established under this act shall be used for the comparison of varieties and methods of culture of field crops, fruits and garden vegetables; for the exemplification of methods for controlling insect pests, weeds and plant diseases; for experiments in the feeding of domestic animals and in the control of animal diseases; for illustrations of the culture of forest trees and the management of farm woodlots; and for the demonstration of the effects of drainage, crop rotation, manures and fertilizers, or for such part of the above lines of work as it may be practicable to carry on.

SECTION 99. Upon the filing of a petition with the county auditor signed by not less than five per cent. of the electors based upon the vote for governor at the last preceding election, residing within the county, the commissioners of such county shall submit to the qualified voters of such county a proposition to establish an experiment farm within such county, and to issue notes or bonds for the purchase and equipment of such farm, such proposition to be voted upon at the next general election following the receipt of the petition by the commissioners. Notice of the intention to submit such proposition shall be published by the county commissioners in two newspapers of opposite politics printed and of general circulation in said county, for at least four weeks prior to the election at which the proposition is to be voted upon, together with a statement of the maximum amount of money which it is proposed to expend in the purchase and equipment of such farm.

SECTION 100. The county auditor shall file a written request with the Board of Deputy Supervisors of elections asking for the preparation of the necessary ballots, which ballots shall be separate and apart from all other ballots, and which ballots shall have printed thereon "Tax for experiment farm—Yes;" "Tax for experiment farm—No." The result of such election shall be ascertained by the Board of Deputy Supervisors of Elections and the result thereof certified to the county auditor.

SECTION 101. If a majority of the electors voting on such proposition in the county, are in favor of establishing such experiment farm, then the commissioners of the county shall levy a tax on all the taxable property in such county as listed for taxation on the county duplicate, which levy shall not exceed one-fifth of one mill on the dollar of the taxable property of the county in any one year, nor shall the aggregate of all levies for such purposes exceed two mills on the dollar.

SECTION 102. To anticipate the collection of the tax authorized by this act and the use of the money to be raised thereby, the county commissioners are hereby authorized and required to issue the notes or bonds of their county, such notes or bonds to bear interest at a rate not to exceed six per cent. per annum, and not to run to exceed ten years, and not to be sold for less than their par value, and the proceeds of the sale thereof shall be deposited in the county treasury, to be applied by the county commissioners to the purchase and equipment of an experiment farm, containing eighty acres or more, as hereinafter provided for.

SECTION 103. When the funds provided for in this act are deposited in the county treasury, the county commissioners shall notify the Agricultural Commission of their action, on receipt of which notice it shall be the duty of the Agricultural Commission to visit the county and assist in the selection of a farm to be used for the purpose specified in this act, provided that no farm shall be purchased except with the approval of the majority of the Agricultural Commission and also of a majority of the board of county commissioners of the county.

SECTION 104. The equipment of an experiment farm shall consist of such buildings, drains, fences, implements, live stock, stock feed and teams as shall be deemed necessary by the Agricultural Commission for the successful work of such farm, and the initial equipment shall be provided by the county in which the farm is established, together with a sufficient fund to pay the wages of the laborers required to conduct the work of such farm during the first season. The county commissioners shall appropriate for the payment of the wages of laborers employed in the management of such farms as may be established under this act, and for the purpose of supplies and materials necessary to the proper conduct of such farms such sums not exceeding two thousand dollars annually for any farm, as may be agreed upon between such county commissioners and the Agricultural Commission.

SECTION 105. The management of all county experiment farms established under authority of this act shall be vested in the director of the Ohio Agricultural Experiment Station, who shall appoint all employes and plan and execute the

work to be carried on, in such manner as in his judgment will most effectively serve the agricultural interests of the county in which such farm may be located, the director and all employees being governed by the general rules and regulations of the Agricultural Commission.

SECTION 106. Before entering upon any line of investigation or demonstration upon any of the county experiment farms established under this act, the director of the experiment station shall submit a written plan of such contemplated work to an advisory board, consisting of the county agricultural society of the county in which such experiment farm may be located; or if there be no county agricultural society, then of the board of county commissioners of such county, and if such plan is not approved by such advisory board, then the work shall not be undertaken.

SECTION 107. The county commissioners of any county may assign to the Agricultural Commission such portion of any farm now owned by the county as may be mutually agreed upon between the county commissioners and the Agricultural Commission, the land thus assigned to be occupied and used by the experiment station for the purpose specified in this act and under the management of the director of the station.

SECTION 108. The produce of each county experiment farm as may be established under this act, over and above that required for the support of the teams and live stock kept on the farm, shall be sold and the proceeds applied to the payment of the labor and to the purchase of the supplies and materials required for the proper management of the farm as contemplated by this act, and for the maintenance of its equipment. Any surplus beyond these requirements shall be covered into the county treasury and placed to the credit of the general fund of the county, except in the case of the use of farms already belonging to the county, in which case the proceeds shall be placed to the credit of such fund as the county commissioners may designate.

SECTION 109. In case the experiment station shall cease to use for the purposes herein specified any county experiment farm established under this act, such farm and its equipment shall be sold at public auction to the highest bidder after notice of such proposed sale shall have been published for four consecutive weeks in two newspapers of opposite politics, once a week, published in and having the largest circulation in the county within which the farm is located, and the proceeds of such sale shall be covered into the county treasury, the sums thus covered to be placed to the credit of the school funds of the county.

SECTION 110. The Agricultural Commission shall carefully inquire into the character and extent of the forests of the state, the causes of their waste and decay, and methods for their preservation and development. It shall conduct investigations in the several sections of the state, determine the species of valuable trees best suited to grow on the various kinds of soil, and ascertain the best methods and cost of the propagation, planting and cultivation of wood lots and plantations. It shall determine the average rate of growth of the various species of trees and the relative values of different kinds of timber for domestic and commercial purposes, and conduct experiments for the purpose of increasing durability of the various kinds of wood; determine the kind of trees and shrubs best suited to different localities for wind-breaks and shelter, and for beautifying grounds, and ascertain the best methods of planting and managing them.

SECTION 111. The Agricultural Commission may co-operate with the Department of Agriculture of the United States in conducting such portion of the work mentioned in section 110, as may be agreed upon by the Agricultural Commission and such department of agriculture.

SECTION 112. The Agricultural Commission shall enforce the laws against fraud, adulteration or impurities in foods, drinks or drugs, and unlawful labeling within the state. The Agricultural Commission shall establish standards of quality, purity and strength for foods, when such standards are not otherwise estab-

lished by any law of this state. Such standards shall conform to the standards for foods adopted by the United States Department of Agriculture. The Agricultural Commission shall make such uniform rules and regulations as may be necessary for the enforcement of the food, drug, dairy and sanitary laws of this state. Such rules and regulations shall, where applicable, conform to and be the same as the rules and regulations adopted from time to time for the enforcement of the act of congress, approved June 30, 1906, and known as "the food and drugs act." The commission shall inspect drugs, butter, cheese, lard, syrup and other articles of food or drink, made or offered for sale in the state, and prosecute or cause to be prosecuted each person, firm or corporation engaged in the manufacture or sale of an adulterated drug or article of food or drink, in violation of law.

SECTION 113. The Agricultural Commission, in the performance of its duty may enter a creamery, factory, store, salesroom, drug store, laboratory or other place where it believes or has reason to believe drugs, food, drink or linseed oil, is made, prepared, dispensed, sold or offered for sale in the state, and prosecute or cause to be prosecuted each person, firm or corporation engaged in the manufacture or sale of an adulterated drug or article of food or drink, in violation of law.

SECTION 114. All fines, fees and costs collected under prosecutions begun, or caused to be begun, by the Agricultural Commission, shall be paid by the court to the commission within thirty days after collection, unless error proceedings have been properly begun and prosecuted and in case the judgment of the justice of the peace is sustained the fine shall be paid within thirty days after such judgment of affirmance, and by the commission paid into the state treasury to the credit of the general revenue fund.

SECTION 115. If the court fails to so pay such fines, fees and costs, the Agricultural Commission shall bring suit in the name of the state for the recovery thereof and interest thereon, and the court in rendering judgment therefor shall add a penalty of ten per cent. on the amount found to be due such general revenue fund.

SECTION 116. The Agricultural Commission shall appoint three men who shall be graduates of reputable, but different, veterinary schools or colleges, and be persons skilled in their profession and of good moral character, and who shall conduct examinations for those who wish to engage in the practice of veterinary medicine and issue certificates therefor. Such examinations shall be held twice in each year, and such examiners shall be appointed at least eight weeks before examinations are held. They shall meet in Columbus in rooms furnished by the Agricultural Commission. The secretary of the Agricultural Commission shall act as secretary. He shall keep an accurate record of the business transacted and of the certificates issued. He shall pay into the state treasury, to the credit of general revenue fund, the fees received from applicants for examination, keep an accurate account of the moneys received and disbursed, and perform such other duties as the Agricultural Commission may prescribe.

SECTION 117. Before entering upon the practice of veterinary medicine and surgery in this state, each person except such as qualify as hereinafter provided, shall pass an examination as to his qualifications and fitness to engage in such practice. Said examination shall be conducted by the persons appointed by the Agricultural Commission, and shall include veterinary anatomy, veterinary physiology, general pathology, veterinary pathology, materia medica, veterinary therapeutics, principles and practice of veterinary medicine, veterinary surgery, veterinary obstetrics, and the control of contagious diseases of domestic animals; and an average grade of at least 70% shall be required for passage.

SECTION 118. An applicant for such examination shall present himself at the offices of the Agricultural Commission at the time when examinations are to be held, and pay five dollars for each examination. The fee shall accompany his writ-

ten application and be paid to the secretary of the Agricultural Commission previous to such examination. One-half the amount of the fee shall be returned to the applicant if he fails in an examination, or if a diploma is accepted in place of an examination.

SECTION 119. The Agricultural Commission may accept a properly issued diploma in place of an examination. A diploma shall not be accepted unless it has been issued by a reputable veterinary school or college that requires a course of study and gives instruction in all the branches of veterinary science.

SECTION 120. A person who successfully passes an examination before the examiners appointed by the Agricultural Commission, shall receive a certificate signed by the commission. The certificate shall state that the person to whom it is issued has passed the prescribed examination and is competent to practice veterinary medicine and surgery. A copy of such certificate shall be recorded by the secretary of the Agricultural Commission in a book kept for that purpose, which shall be open to public inspection. If an applicant is unsuccessful, he shall not be eligible to another examination until the expiration of one year thereafter.

SECTION 121. That sections 1390 to 1394, inclusive, 1405, 1411, 1421, 1423, 1424, 1435, 1437, 1438, 1445, 1446, 1453, 1454, 1455, 1460, 1485, 265, 485, 1313, 1850, 2269, 2274, 2616, 3357, 5782, 6087, 6088, 6089, 6091, 6336, 7965, 7965-1, 9916 to 9921, inclusive, 12521, 12523, 12672, 12673, 12743, 12757, 12794, and 12798 of the General Code be amended to read as herein provided:

Sec. 1390. The Agricultural Commission shall have authority and control in all matters pertaining to the protection, preservation and propagation of song and insectivorous birds, game birds, game animals and fish within the state and in and upon the waters thereof. It shall enforce by proper legal action or proceeding the laws of the state for the protection, preservation and propagation of such birds, animals and fish; shall establish fish hatcheries and propagate fish therein or in any other manner for the waters of the state, and, so far as funds are provided therefor, shall adopt and carry into effect such measures as it deems necessary in the performance of its duties.

Sec. 12757. Whoever refuses to allow the Agricultural Commission, its inspectors or agents, to enter a creamery, factory, store, salesroom, drug store, laboratory, booth, vehicle, steam or electric car or place which he desires to enter in the discharge of his official duty, or interferes with him in such discharge, or refuses to deliver to him a sample of food, drug or linseed oil made, sold, offered or exposed for sale by such person, upon request therefor and tender of the value thereof, shall be fined not less than fifty dollars nor more than two hundred dollars, and for each subsequent offense, shall be fined not less than one hundred dollars nor more than three hundred dollars or imprisoned in jail not less than thirty days nor more than one hundred days, or both.

Sec. 1850. The Agricultural Commission, the State Board of Health, and the Ohio State University, respectively, shall co-operate with the board and managing officer of each institution in making such co-operative tests as are necessary to determine the quality, strength and purity of supplies, or the value and use of farm lands, or condition and needs of mechanical equipment.

Sec. 12743. Whoever puts a brand indicating "full milk cheese" upon cheese made of milk from which any of the cream has been taken, or uses such brand without having obtained from the Agricultural Commission in conformity to law, a stencil brand containing the words "Ohio state full cream cheese," or uses such brand upon other than full cream cheese or a package containing such cheese, shall be fined not less than fifty dollars nor more than one hundred dollars or imprisoned in the county jail not less than ten days nor more than thirty days, and, for each subsequent offense, shall be fined not less than one hundred dollars nor more than two hundred dollars or imprisoned in the county jail not less than twenty days nor more than sixty days, or both.

Sec. 5782. The Agricultural Commission shall procure and issue to the cheese

manufacturers of this state upon proper application made on or before the first day of April of each year and under such regulations as to the custody and use thereof as he may prescribe, a uniform stencil brand bearing a suitable device or motto, and the words "Ohio state full cream cheese." Such brand shall be used upon the outside of each cheese, cheese-cloth or band around it and upon the box or package containing it, and shall bear a separate number for each factory. Such brand shall not be used upon other than full milk cheese or packages containing it; provided, that no cheese shall be so branded unless it contains at least thirty per cent. of pure butter fat. The commission shall keep a book in which shall be registered the name, location and number of each manufacturer using such brand, and the name or names of the person in each factory authorized to use it, and he shall receive one dollar for each registration according to the provisions of this section, such fee to be paid by the person applying for such registration.

Sec. 12798. If the Agricultural Commission or any of its inspectors or agents, is of the opinion that a place named in the preceding section is being operated in violation of such section he shall notify the proprietor, owner or manager thereof, in writing, to place it in a clean and sanitary condition within a reasonable time to be stated in such notice, which time shall not be less than ten days.

Sec. 12794. The Agricultural Commission shall enforce the provisions of the next four preceding sections.

Sec. 6336. The Agricultural Commission shall enforce the provisions of this chapter and the penal statutes relating thereto and the commission, its assistants, experts, chemists and agents shall have access and ingress to the places of business, stores and buildings used for the sale of paint, turpentine or linseed oil, and may open any package, can, jar, tub or other receptacle containing an article that may be sold or exposed for sale in violation of such provisions or statutes. The inspectors, assistants or chemists, appointed by the commission shall perform like duties and have like authority under this chapter and the penal statutes relating thereto as is provided by law in other cases.

Sec. 7965. The Agricultural Commission shall be state sealer, and shall make, promulgate and enforce such rules and regulations as may be necessary to the prompt and effective enforcement of the weights and measures laws of this state. The standards of weights and measures adopted by the state shall be deposited in a suitable room at Columbus, and be by it kept in suitable cases, to be opened only for the purpose of comparing them with such standards the copies which by law are furnished for the use of the several counties, cities or villages unless by joint resolution of the general assembly, or upon a call of either house for information, or by order of the governor for scientific purposes. The Agricultural Commission shall, upon the passage of this act, and once every three years thereafter, require each county auditor and city or village sealer, in this state, to present all standards of weights and measures in their possession to him for comparison with the standards adopted by the state, and the Agricultural Commission shall condemn and destroy all of such standards as do not conform with the standards adopted by the state. Each county auditor and each city and village sealer shall be required to procure copies of all the original standards adopted by the state named in section seven thousand, nine hundred and sixty-six of the General Code, except such standards now in their possession as the Agricultural Commission shall find to conform with the standards adopted by the state. It shall be the duty of the Agricultural Commission to advise and assist all county, city and village sealers, and generally be charged with the enforcement of all laws relating to weights and measures, and in the performance of such duties it may use the services of any person employed under its department. The Agricultural Commission or any person employed by it for that purpose may try and prove any weights, measure, balance and any other weighing or measuring device, on request from any person, and when the same are found or made to conform to the state standards shall

cause the same to be sealed and marked, as provided in section two thousand six hundred and sixteen of the General Code.

Sec. 7965-1. The Agricultural Commission or its deputy, or any other duly authorized sealer of weights and measures or his deputy, may inspect and test any weight, measure, balance or other weighing or measuring device, wherever the same is used or maintained for use, and if such weight, measure, balance or other weighing or measuring device is found to be false or fraudulent, or cannot be made to conform to the legal standard, the same shall be condemned and confiscated by the said sealer or deputy sealer.

Sec. 7965-2. The Agricultural Commission or any duly authorized sealer of weights and measures or his deputy, shall inspect and test any weights and measures, balances and weighing and measuring devices having a device for indicating or registering the price as well as the weight or quantity of commodities both as to correctness of weight or quantity and value indicated by them; the commission or any sealer of weights and measures or his deputy shall seal such weights and measures, balances and weighing and measuring devices as shall be tested and found correct, and, after ten days' notice in writing to the owner, shall condemn or seize such as are found to be incorrect, and shall seal such weights and measures, balances, weighing and measuring devices having a device for indicating or registering the price as well as the weight or quantity of commodities only when correct both in indications of weight or quantity and value, and shall condemn or seize such in which the graduations or indications are found to be false or inaccurately placed either as to weight or quantity or value.

Sec. 2616. The county sealer shall compare all weights and measures, brought to him for that purpose, with the copies of standards in his possession. When they are made to conform to the legal standards, the officer comparing them shall seal and mark such weights and measures. No weight, measure, balance or other weighing or measuring device shall be used or maintained for weighing and measuring in this state unless such weight, measure, balance or other weighing or measuring device has been sealed or marked by the Agricultural Commission or any employe of the commission detailed for that purpose, or by the county sealer or by the sealer of the city or village in which the same is used or maintained, by stamping upon each the letter "O" and the last two figures of the year in which it has been compared with legal standards, adjusted and found or made to conform to said standards, with seals to be provided by said Agricultural Commission for that purpose. Whoever violates any of the provisions of this section shall be fined not less than fifty dollars nor more than one hundred dollars for the first offense and for each subsequent offense shall be fined not less than one hundred dollars nor more than five hundred dollars and imprisoned for not more than ninety days or both. A justice of the peace, police judge, or mayor shall have final jurisdiction in such cases as in cases of violation of law relating to the adulteration of food and drink and dairy products.

Sec. 1391. The Agricultural Commission may appoint a chief warden and such number of deputy state wardens and special wardens as it deems necessary. The chief warden and each deputy state warden shall hold his office for a term of two years unless sooner removed by the commission. Each special warden shall hold his office for such time as the commission directs and shall have the same powers and perform the same duties as a deputy state warden.

Sec. 1392. Before entering upon the discharge of the duties of his office, each warden shall give bond to the state; the chief warden in the sum of two thousand dollars, each deputy state warden in the sum of two hundred dollars, and each special warden in the sum of five hundred dollars, with two or more sureties approved by the Agricultural Commission, conditioned for the faithful discharge of the duties of his office. Such bond, with the approval of the commission and the oath of office indorsed thereon, shall be deposited with the commission and kept in its office.

Sec. 1393. The chief warden, special wardens and deputy state wardens shall enforce the provisions of this act and the laws relating to the protection, preservation and propagation of birds, fish and game. Under the direction of the Agricultural Commission, the chief warden shall visit all parts of the state and direct and assist special wardens and deputy state wardens in the discharge of their duties.

Sec. 1394. The Agricultural Commission may allow the chief warden, each special warden and each deputy state warden such compensation as it deems proper and his necessary expenses. In addition to the salaries and compensation herein provided, each warden shall be entitled to receive the same fees as sheriffs are allowed for like services in criminal cases. The salaries and expenses of the chief warden and each special warden and the compensation allowed each deputy state warden shall be paid by the state upon the order of the commission.

Sec. 1405. If the defendant in a prosecution or condemnation proceeding under the provisions of this act is convicted, judgment shall be rendered against him for the costs in addition to the fine imposed or forfeiture declared. The judgment shall be the first lien upon his property and no exemption shall be claimed or allowed against such lien. If he fails to pay the fine and costs imposed or execution issued is returned unsatisfied, the person convicted shall be committed to the jail of the county or to a work house and there confined one day for each dollar of fine and costs adjudged against him. He shall not be discharged therefrom by any board or officer except upon payment of the fine and costs remaining unsatisfied or upon the order of the Agricultural Commission.

Sec. 1411. The preceding two sections shall not apply to a duly accredited person having a permit issued by order of the Agricultural Commission authorizing him to collect birds, their nests, and eggs for scientific purposes only. The applicant for a permit shall present to the commission the written testimonials of two well known scientific persons or teachers of science, certifying to the good character and fitness of the applicant and pay the commission a fee of five dollars. He shall also give a bond to the state in the sum of one hundred dollars with two or more sureties approved by the commission that he will not kill a bird or take the nests or eggs of a bird for any other purpose than that provided herein, which bond shall be kept in the office of the commission. Each permit shall be in force for one year from the date of its issue and shall not be transferable, but upon the forfeiture of a bond of a person, his permit shall become void.

Sec. 1421. A non-resident who desires to hunt in this state shall make application for a hunter's license to the clerk of courts of the county in which he desires to hunt, and for such license pay a fee of fifteen dollars and an additional fee of twenty-five cents if demanded by the clerk of courts. The form of such license shall be prepared by the Agricultural Commission and approved by the attorney general, and shall entitle the person to whom it is issued to hunt within this state in a lawful manner and to take with him from the state game and birds killed by him not to exceed fifty of all kinds. Such licenses, in the form approved and blanks required for reports and records shall be furnished by the Agricultural Commission to the clerk of courts in each county.

Sec. 1423. The clerk of courts shall keep a record of each license issued, which record shall be open at all reasonable hours for inspection. He shall make a report to the Agricultural Commission in such form as it requires during the month of December of each year of the number of licenses issued to hunters during the preceding year and transmit it with the moneys received by him for licenses to the president of the Agricultural Commission. The moneys so collected shall be paid into the state treasury to the credit of the general revenue fund.

Sec. 1424. Each license issued in accordance with the preceding sections shall expire on the fifth day of December next after its issue, but the Agricultural Commission may revoke it at any time upon satisfactory proof that its

holder has hunted in violation of law. No license shall be granted to a person whose license has been revoked, for a period of one year thereafter.

Sec. 1435. No person, firm or corporation shall use or operate for the purpose of catching fish, a boat, net or device, other than hook and line with bait or lure, in the Lake Erie fishing district of this state, without a license from the Agricultural Commission. Applications for licenses and all licenses herein required shall be in such form as the commission may prescribe.

Sec. 1437. When a person, firm or corporation applies to the Agricultural Commission for a license required by the preceding two sections, the commission, upon receiving the license fees, prescribed in such sections, shall issue such license duly signed by the Agricultural Commission. Such license shall remain in force and entitle the holder thereof to fish as permitted by law from the date of issue to and including the last day of the season for which such license was issued. The license required by the preceding two sections shall be carried by an operator of boats, nets or other devices while being used in the catching of fish, and exhibited on demand to any warden, constable, sheriff, deputy sheriff, police officer or Agricultural Commission. It shall be unlawful for any licensee having such license in his possession to refuse to exhibit it on demand to any proper officer or member of the Agricultural Commission.

Sec. 1438. The Agricultural Commission shall issue to each person licensed to catch fish in the Lake Erie fishing district one metal tag for each net or other device, other than a gill net, or hook and line, used by such licensee for catching fish in such district. No licensee shall use such net or other device, other than a gill net, or hook and line, without attaching such tags thereto in such manner as the commission may prescribe. If such tags are not attached to such nets or other devices as herein required, it shall be prima facie evidence that they have not been procured. It shall be unlawful for any one to fish in any of the waters of the Lake Erie fishing district with any trammel net.

Sec. 1445. Whoever violates any provision of sections fourteen hundred and nine to fourteen hundred and forty-four, both inclusive, shall be fined not less than twenty-five dollars nor more than two hundred dollars, and the costs of prosecution, and upon default of payment of fine and costs shall be committed to the jail of the county or to some workhouse and there confined one day for each dollar of the fine and costs against him. He shall not be discharged or released therefrom by any board or officer except upon payment of the portion of the fine and costs remaining unserved or upon the order of the Agricultural Commission.

Sec. 1446. No person shall take, catch, or kill fish in any waters, over which the state of Ohio has jurisdiction, by means of quicklime, electricity, or any kind of explosive or poisonous substance, or place or use quicklime, electricity, explosive or poisonous substances in any such waters except for engineering purposes and upon the written permission of the Agricultural Commission.

Sec. 1453. German carp may be taken or caught at any time in the bays, marshes, estuaries or inlets bordering upon, flowing into or in any manner connected with Lake Erie, with any seine, having meshes not less than four inches, stretched mesh. Other nets or devices may be used if authorized by the Agricultural Commission. Written permission to catch carp in such waters shall be granted to any person making application to the commission for such privilege who satisfies the commission that he will not violate a law for the protection of fish. Such permission may be revoked by the commission upon conviction of the holder thereof for taking fish contrary to law.

Sec. 1454. Nothing in this chapter shall prevent the Agricultural Commission, its agents and employees from taking fish at any time or place or in any manner for the maintenance or cultivation of fish in hatcheries or for the purpose of stocking ponds, lakes or rivers, or from exterminating carp in any waters.

Sec. 1455. For the purpose of obtaining spawn for the fish hatcheries, the Agricultural Commission may place its agents in any boat used in taking fish and

pay for such spawn such amount as it may fix. No person engaged in fishing shall refuse to take such agents in such boat owned by him or under his control or to afford them opportunity to take spawn, or to hinder them in the performance of such duty.

Sec. 1460. All fines, penalties and forfeitures arising from prosecutions, convictions, confiscations, or otherwise under this act, unless otherwise directed by the Agricultural Commission shall be paid by the officer by whom the fine is collected to the Agricultural Commission and by it paid into the state treasury to the credit of a fund which is hereby appropriated for the use of the Agricultural Commission. All moneys collected as license on nets in the Lake Erie fishing district under this act shall be paid by the Agricultural Commission into the state treasury as a special fund to be used in the betterment and maintenance of fish hatcheries in the Lake Erie fishing district and the propagation of fish therein, or in otherwise propagating fish in such district; and for that purpose such fund is hereby appropriated, and shall be paid out upon the order of the Agricultural Commission, but shall not be used or paid out for any purpose other than the purposes for which such fund is appropriated.

Sec. 485. All lakes, reservoirs and state lands dedicated to the use of the public for park and pleasure resort purposes, with respect to the enforcement of all laws relating to the protection of birds, fish and game, shall be under the supervision and control of the Agricultural Commission. All laws for the protection of fish in inland rivers and streams of the state, and all laws for the protection of birds, fish and game shall apply to all such state reservoirs and lakes.

Sec. 2269. The annual reports of the appointive state officers and boards shall be printed as follows:

Adjutant general, eight hundred copies.

Superintendent of banks, seven hundred copies.

Agricultural Commission, five thousand copies.

Commission for the Blind, two thousand copies.

State Board of Dental Examiners, two hundred and fifty copies.

State fire marshal, two thousand five hundred copies.

State Board of Health, three thousand two hundred and fifty copies.

State Highway Commission, five thousand copies.

Superintendent of insurance as follows: Life insurance, one thousand two hundred copies; other than life, one thousand two hundred copies; building and loan, one thousand five hundred copies.

Commissioner of Labor Statistics, three thousand five hundred copies.

State Board of Library Commissioners, three hundred copies.

Chief inspector of mines, five thousand copies.

State inspector of oils, three hundred copies.

Supervisor of public printing, four hundred copies.

State Railroad Commission, each report to contain a railroad map of the state, seven hundred copies; in addition there shall be printed railroad maps on cloth paper to be mounted on rollers, eight thousand copies; in pocket edition form, sixteen thousand copies.

Ohio State University, five thousand copies.

Chief inspector of workshops and factories, one thousand seven hundred and fifty copies.

Sec. 2274. The reports of the secretary of state, auditor of state, attorney general, commissioner of common schools, superintendent of insurance, state railroad commission, agricultural commission, chief inspector of mines, and the commissioner of labor statistics, shall be bound in muslin. The reports of other state officers and boards, and of the benevolent and correctional institutions, shall be bound in brochure covers, unless otherwise ordered by the general assembly.

Sec. 12521. Whoever disturbs, injures or destroys a tree, plant, lawn, embankment, decoration or other property, or kills, injures or disturbs a water fowl, water

animal, bird or game kept as a semi-domestic pet upon an island or within the boundary lines of Buckeye Lake, Indian Lake or Portage Lake, or an embankment or state lands adjacent thereto, shall be fined not less than twenty-five dollars nor more than two hundred dollars and imprisoned one day for each dollar of fine and costs until paid or he is discharged upon the order of the Agricultural Commission.

Sec. 12523. Whoever hunts or traps upon lands, ponds, lakes or private waters of another, except waters claimed by riparian right of ownership in adjacent lands, or thereon shoots, shoots at, catches, kills, injures or pursues a bird, wild fowl or wild animal without obtaining written permission from the owner or his authorized agent, shall be fined not less than ten dollars nor more than fifteen dollars, and, for each subsequent offense, shall be fined not less than fifteen dollars nor more than fifty dollars. In default of payment of such fine and costs, he shall be committed to the jail of the county or to a workhouse and there confined one day for each dollar of such fine and costs. He shall not be discharged therefrom except upon payment of the portion of the fine and costs remaining unsatisfied, or upon the order of the Agricultural Commission.

Sec. 265. Upon receiving from the county auditors the reports required of them showing the number of sheep killed or injured by dogs, the loss sustained by reason thereof, the amount paid thereon by the county, and the balance of the fund for that purpose, the auditor of state shall prepare and furnish the Agricultural Commission a statement embodying the information so received and presented by counties, for publication in the annual report of the commission.

Sec. 6087. The inspectors appointed by the Agricultural Commission, by personal visitation or otherwise, shall make investigations to secure the names of all persons, firms or corporations liable to such assessment or increased assessment, whose names are not already on the duplicate, and report such names to the Agricultural Commission. In the performance of the duties imposed by this section on the Agricultural Commission and its inspectors they shall exercise the same powers as are now conferred by sections 830, 831 and 832 of the General Code.

Sec. 6088. The Agricultural Commission, upon the report and information submitted to it, shall determine and forthwith certify to the auditor of state, the names of all persons, firms or corporations liable to such assessment or increased assessment, whose names are not already on the duplicate, together with a description of the real estate upon which said business is carried on. The Agricultural Commission shall keep a record of all such cases so certified by it to the auditor of state.

Sec. 6089. Thereupon the auditor of state shall cause all of such names to be entered upon the assessment duplicate of the proper county by the auditor thereof, together with a penalty of twenty per cent. thereon, which shall be collected in like manner as other assessments. Upon the request of the Agricultural Commission the auditor of state and county treasurers shall forthwith make a report to it of their action upon all cases certified by it to the auditor of state until the duties and penalty thereon are paid into the county treasury.

Sec. 6091. The auditor of state, with the consent and approval of the Agricultural Commission may correct any errors or remit any such assessment or increased assessment, together with the penalty thereon, if it is found to have been erroneously or illegally certified.

Sec. 3357. At the time he returns the lists of personal property for taxation, the assessor shall make return of all such statistics to the county auditor. On or before the first day of August, each year, the county auditor shall make return to the auditor of state of all statistics returned to his office, except those statistics under the head of "agriculture," which he shall return to the Agricultural Commission on or before the tenth day of July, each year, and the commission may compile and publish them in the monthly crop and stock bulletins and annual report.

Sec. 9916. When twenty or more persons, residents of a county, organize themselves into a farmers' institute society, for the purpose of teaching better methods of farming, stock raising, fruit culture, and business connected with agriculture, and adopt a constitution and by-laws conforming to rules and regulations furnished by the Agricultural Commission, and when such society has elected proper officers and performed such other acts as are required by the rules of the commission, it shall be a body corporate.

Sec. 9917. Not to exceed five farmers' institute societies so organized shall hold annual meetings under the auspices of the Agricultural Commission in any one county. The commission may determine the number, and name the times and places for holding such institute meetings.

Sec. 9918. When a society so organized has held an annual farmers' institute meeting in accordance with the rules of the Agricultural Commission, the secretary of the commission shall issue certificates, one to the president of the farmers' institute society and one to the president of the Agricultural Commission, setting forth such facts. On the presentation of such certificates to the county auditor, he, each year, shall draw orders on the treasurer of the county as follows: One in favor of the president of the Agricultural Commission for one hundred and seventy-five dollars and one in favor of the president of each farmers' institute society in the county, holding meetings under the auspices and by the direction of the Agricultural Commission, for the amount of the actual expenses and not to exceed twenty-five dollars to pay necessary local expenses, and when such expenses have been itemized and certified to by the president of an institute and submitted to the Agricultural Commission, such commission shall authorize the county auditor to issue a warrant, and the treasurer of the county shall pay them from the county fund. But in no county shall the total annual sum exceed three hundred dollars, nor shall the payment to a farmers' institute society exceed the expenses, as per detailed statement provided in the following section.

Sec. 9919. With each certificate of the secretary of the Agricultural Commission to the county auditor, which certificate shall show the number of societies organized in the county and holding meetings by direction of the Agricultural Commission, and before he issues his order on the treasurer, there shall be filed with the auditor a detailed statement of the expenses of the institute for the current year, no part of which shall be for salaries of officers of the institute society. This provision does not apply to the order in favor of the president of the Agricultural Commission.

Sec. 9920. At the annual farmers' institute meetings, held as herein provided, and under the auspices of the Agricultural Commission, the commission shall furnish lecturers or speakers whose compensation and expenses it shall pay.

Sec. 9921. At the close of each season's institute work, the Agricultural Commission, in pamphlet or book form, may publish such lectures and papers delivered at the several institute meetings, as seem of general interest and importance to the farmers, stock breeders and horticulturalists of the state, copies of which shall be furnished the secretary of each institute society, and the remainder be for general distribution. The cost of preparing and distributing the pamphlet or book shall be paid by the Agricultural Commission. The commission shall also publish therein a detailed statement of its receipts under the foregoing provisions, and the disbursements on account of institute work.

Sec. 12672. Whoever sells, barter, furnishes or gives away any quantity of cocaine, alpha or beta eucaine or alypin, or any of their salts or compounds, or any preparation or mixture containing any of the aforesaid drugs or their salts or compounds of any of the combinations, of the same, except upon the prescription of a physician, veterinary surgeon or dentist duly licensed under the laws of this state, which prescription shall contain the name of the physician veteri-

nary surgeon or dentist issuing it, the date of issue and the name of the person for whom it is issued; or fails to keep such prescription on file for at least two years, in such manner that it is accessible at all reasonable times to the inspection of the proper officer or officers of the law and the Agricultural Commission, or fills such prescription more than once, shall be fined not less than fifty dollars nor more than five hundred dollars for the first offense, and for each subsequent offense shall be imprisoned not less than one year nor more than five years in the penitentiary. This section does not extend to sales at wholesale of any quantity of the above mentioned drugs to duly registered pharmacists, physicians, dentists or veterinary surgeons.

Sec. 12673. It shall be the duty of the Agricultural Commission to enforce the provisions of section twelve thousand six hundred and seventy-two, and all fines collected under section twelve thousand six hundred and seventy-two shall be paid to the Agricultural Commission, and by it covered into the state treasury.

Sec. 1313. The Agricultural Commission shall enforce the laws relating to the practice of pharmacy. If it has information that any provision of the law has been violated, it shall investigate the matter, and, upon probable cause appearing, file a complaint and prosecute the offender. Fines assessed and collected under prosecutions commenced or caused to be commenced by the Agricultural Commission shall be paid into the state treasury each month to the credit of the general revenue fund.

SECTION 122. The Agricultural Commission shall keep a record of its acts and investigations, and shall make an annual report to the governor giving the results of its activities with such recommendations as it may deem proper. The Agricultural Commission may also publish and distribute bulletins from time to time on matters of general interest relating to the work of the commission.

SECTION 123. Each section of this act, and every part thereof is hereby declared to be an independent section, and part of section, and if any section or part of a section is void or ineffective for any cause, it shall not affect any other section or part of a section of this act.

SECTION 124. That sections 368 to 381, inclusive, 776, 1079 to 1177, inclusive, 1387 to 1389, inclusive, and original sections 1390 to 1394, inclusive, 1405, 1411, 1421, 1423, 1424, 1435, 1437, 1438, 1445, 1446, 1453, 1454, 1455, 1460, 1485, 265, 485, 1313, 1850, 2269, 2274, 2616, 3357, 5782, 6087, 6088, 6089, 6091, 6336, 7965, 7965-1, 9916 to 9921, inclusive, 12521, 12523, 12672, 12673, 12743, 12757, 12794, and 12798 of the General Code be and the same are hereby repealed.

C. L. SWAIN,

Speaker of the House of Representatives.

HUGH L. NICHOLS,

President of the Senate.

Passed April 15, 1913.

Approved May 3, 1913.

JAMES M. COX, *Governor.*

Filed in the office of Secretary of State May 7, 1913.

